HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL

BA-6 CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KD-27FS170	RM-YD006	US	SCC-S61Y-A
KD-32FS170	RM-YD006	US	SCC-S81A-A
KD-36FS170	RM-YD006	US	SCC-S81B-A

ORIGINAL MANUAL ISSUE DATE: 2/2006

REVISION DATE	SUBJECT
2/2006	No revisions or updates are applicable at this time.

TRINITRON® COLOR TELEVISION

SONY®

9-965-996-01

Self Diagnosis Supported model

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KD-32FS170

RM-YD006

TRINITRON® COLOR TELEVISION

SONY®

9-965-996-01

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SPECIFICATIONS

	KD-27FS170	KD-32FS170	KD-36FS170
Power Requirements	120V, 60Hz	120V, 60Hz	120V, 60Hz
Number of Inputs/Outputs			
Video [1]		2	
S Video [2]		1	
Y,P_B, P_R [3]		1	
Audio [4]		3	
ATSC		1	
RF [5]		1	
Speaker Output (W)		5W x 2	
Power Consumption (W)			
In Use (Max)	130W	160W	160W
In Standby (Max) [5]	<1W	<1W	<1W
Dimensions (W x H x D)			
mm	768 x 590 x 497 mm	898 x 696 x 576 mm	985 x 776 x 633 mm
in	30 1/4 x 23 1/4 x 19 5/8 in	35 3/8 x 27 3/8 x 22 5/8 in	38 3/4 x 30 1/2 x 24 7/8 in
Mass			
kg	44.5 kg	72 kg	98 kg
lbs	98 lbs	158.5 lbs	215.5 lbs

1) 1 Vp-p 75 ohms unbalanced, sync negative
2) Y: 1 Vp-p 75 ohms unbalanced, sync negative
   C: 0.286 Vp-p (Burst signal), 75 ohms
3) Y: 1.0 Vp-p, 75 ohms, sync negative; PB: 0.7 Vp-p, 75 ohms;
   PR Vp-p, 75 ohms.
4) 500 mVrms (100% modulation), Impedance: 47 kilohms
5) This specification is the maximum wattage.

Television system
American TV standard, NTSC
ATSC Compliant 8VSB, ATSC (8VSB terrestrial)

Channel coverage
Analog: VHF: 2-69/CATV: 1-125
Digital: VHF: 2-69

Antenna
75-ohm external antenna terminal for VHF/UHF

Picture tube
FD Trinitron® tube

Visible screen size
27-inch picture measured diagonally
(KD-27FS170 Only)
32-inch picture measured diagonally
(KD-32FS170 Only)
36-inch picture measured diagonally
(KD-36FS170 Only)

Actual screen size
29-inch picture measured diagonally
(KD-27FS170 Only)
34-inch picture measured diagonally
(KD-32FS170 Only)
38-inch picture measured diagonally
(KD-36FS170 Only)

Supplied Accessories
Remote Commander RM-YD006
Two Size AA (R6) Batteries

Optional Accessories
TV Stand SU-27FS2 (KD-27FS170 Only)
SU-32FS2 (KD-32FS170 Only)
SU-36FS2 (KD-36FS170 Only)

As an ENERGY STAR ® Partner, Sony Corporation has determined that this product meets the ENERGY STAR ® guidelines for energy efficiency. ENERGY STAR® is a U.S. registered mark.

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Design and specifications are subject to change without notice.

WARNINGS AND CAUTIONS

CAUTION

Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield, or carbon painted on the CRT, after removing the anode.

WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the AC power line.

⚠ SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and ⚠ mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.

ATTENTION!!

Apres avoir deconnecte le cap de l'anode, court-circuiter l'anode du tube cathodique et celui de l'anode du cap au chassis metallique de l'appareil, ou la couche de carbone peinte sur le tube cathodique ou au blindage du tube cathodique.

Afin d'eviter tout risque d'electrocution provenant d'un châssis sous tension, un transformateur d'isolement doit etre utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.

⚠ ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

Les composants identifies par une trame et par une marque ⚠ sur les schemas de principe, les vues explosees et les listes de pieces sont d'une importance critique pour la securite du fonctionnement. Ne les remplacer que par des composants Sony dont le numero de piece est indique dans le present manuel ou dans des supplements publies par Sony. Les reglages de circuit dont l'importance est critique pour la securite du fonctionnement sont identifies dans le present manuel. Suivre ces procedures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement suspecte.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.

2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.

3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.

4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.

8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.

2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

How to Find a Good Earth Ground

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

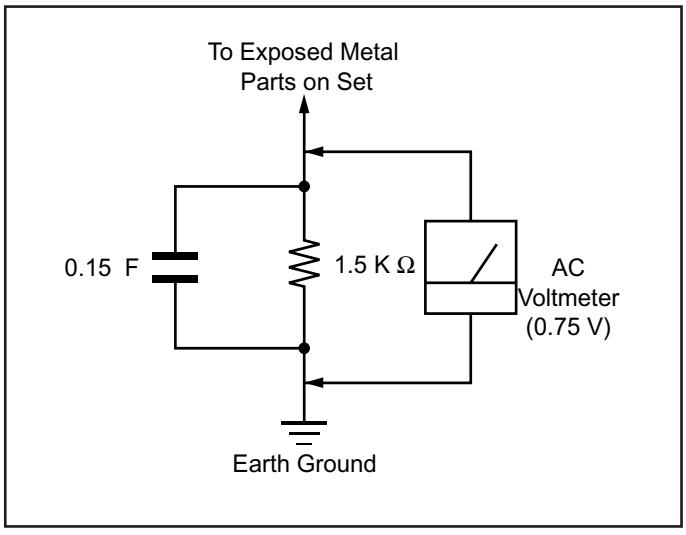


Figure A. Using an AC voltmeter to check AC leakage.

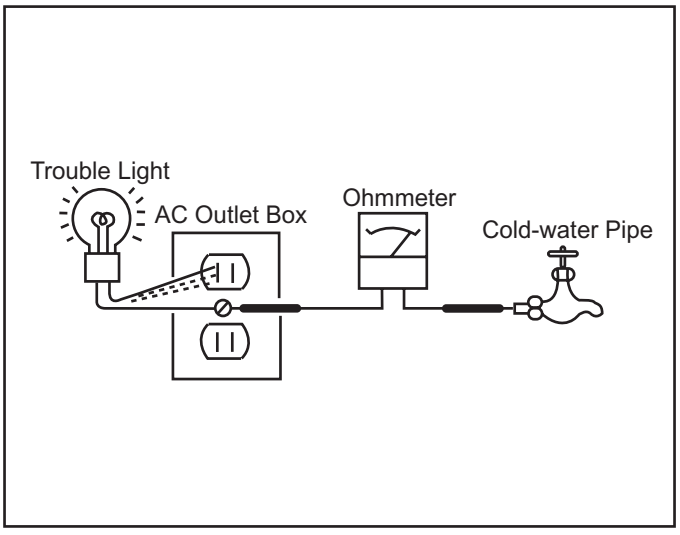


Figure B. Checking for earth ground.

SELF-DIAGNOSTIC FUNCTION

Self Diagnosis Supported model

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the Remote Commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

Diagnostic Test Indicators

When an error occurs, the STANDBY/TIMER LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.

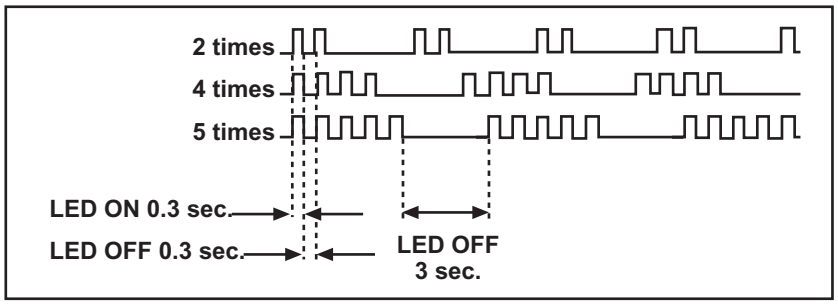
Results for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

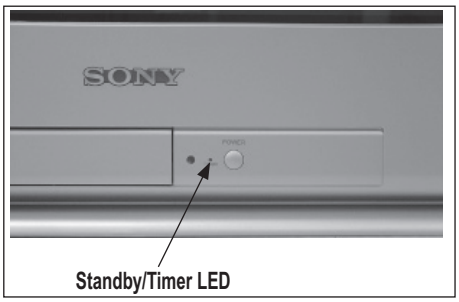
Diagnostic Item Description	No. of times STANDBY/ TIMER lamp flashes	Self-Diagnositc Display/ Diagnostic Result	Probable Cause Location	Detected Symptoms
Power does not turn on	Does not light	————	• Power cord is not plugged in. • Fuse is burned out (F601). (A Board)	• Power does not come on. • No power is supplied to the TV. • AC Power supply is faulty.
+B overcurrent (OCP)*	2 times	2:0 or 2:1	• H.OUT (Q502) is shorted. (A Board) • IC702 is shorted. (CV Board)	• Power does not come on. • Load on power line is shorted.
I-Prot	4 times	4:0 or 4:1	• +13V is not supplied. (A Board) • IC561 is faulty. (A Board)	• Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
IK (AKB)	5 times	5:0 or 5:1	• IC001 is faulty. (A Board) • Screen (G2) is improperly adjusted.**	• No raster is generated. • CRT Cathode current detection reference pulse output is small.

*If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The symptom that is diagnosed first by the mircrocontroller is displayed on the screen.

**Refer to Screen (G2) Adjustments in Section 2-4. of this manual.

Display of Standby/Timer LED Flash Count





Diagnostic Item	Flash Count*
+B Overcurrent	2 times
I-Prot	4 times
IK (AKB)	5 times

*One flash count is not used for self-diagnostic.

Stopping the Standby/Timer LED Flash

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER LAMP from flashing.

Self-Diagnostic Screen Display

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure on the screen for confirmation.

To Bring Up Screen Test

In standby mode, press buttons on the Remote Commander sequentially, in rapid succession, as shown below:

DISPLAY → Channel 5 → Sound Volume − → POWER

↑ Note that this differs from entering the Service Mode (Sound Volume +).

Self-Diagnostic Screen Display

SELF DIAGNOSTIC		
2:	+B OCP	0
3:	+B OVP	N/A
4:	VSTOP	0
5:	AKB	1
101:	WDT	N/A

Numeral “0” means that no fault was detected.

Numeral “1” means a fault was detected one time only.

Handling of Self-Diagnostic Screen Display

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

Clearing the Result Display

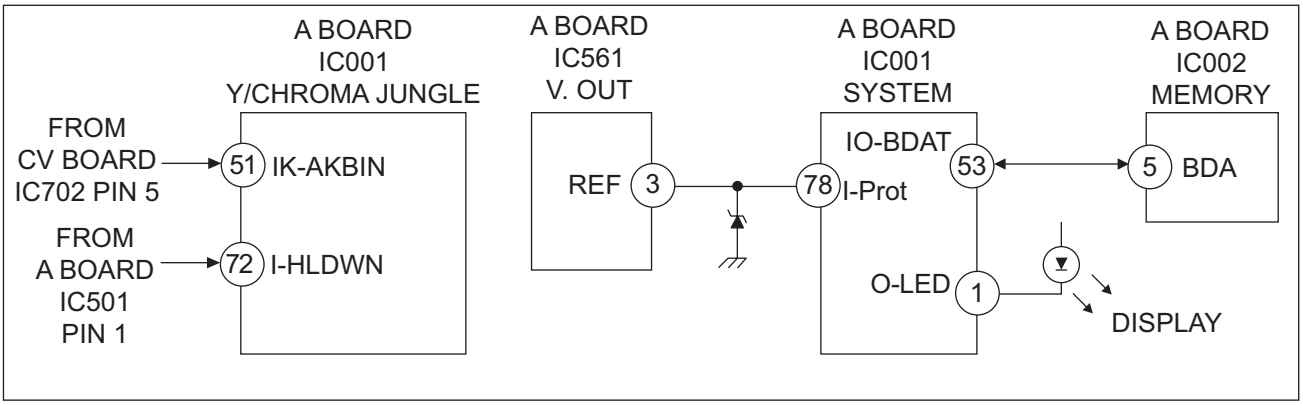
To clear the result display to “0”, press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

Channel 8 → ENTER

Quitting the Self-Diagnostic Screen

To quit the entire self-diagnostic screen, turn off the power switch on the Remote Commander or the main unit.

Self-Diagnostic Circuit



+B overcurrent (OCP)

Occurs when an overcurrent on the +B (135V) line is detected by pin 72 of IC001 (A Board). If the voltage of pin 72 of IC001 (A Board) is less than 1V when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.

I-Prot

Occurs when an absence of the vertical deflection pulse is detected by pin 78 of IC001 (A Board). Power supply will shut down when waveform interval exceeds 2 seconds.

IK (AKB)

If the RGB levels* do not balance within 2 seconds after the power is turned on, this error will be detected by IC001 (A Board). TV will stay on, but there will be no picture.

*(Refers to the RGB levels of the AKB detection Ref pulse that detects IK).

SECTION 1: DISASSEMBLY

1-1. REAR COVER REMOVAL

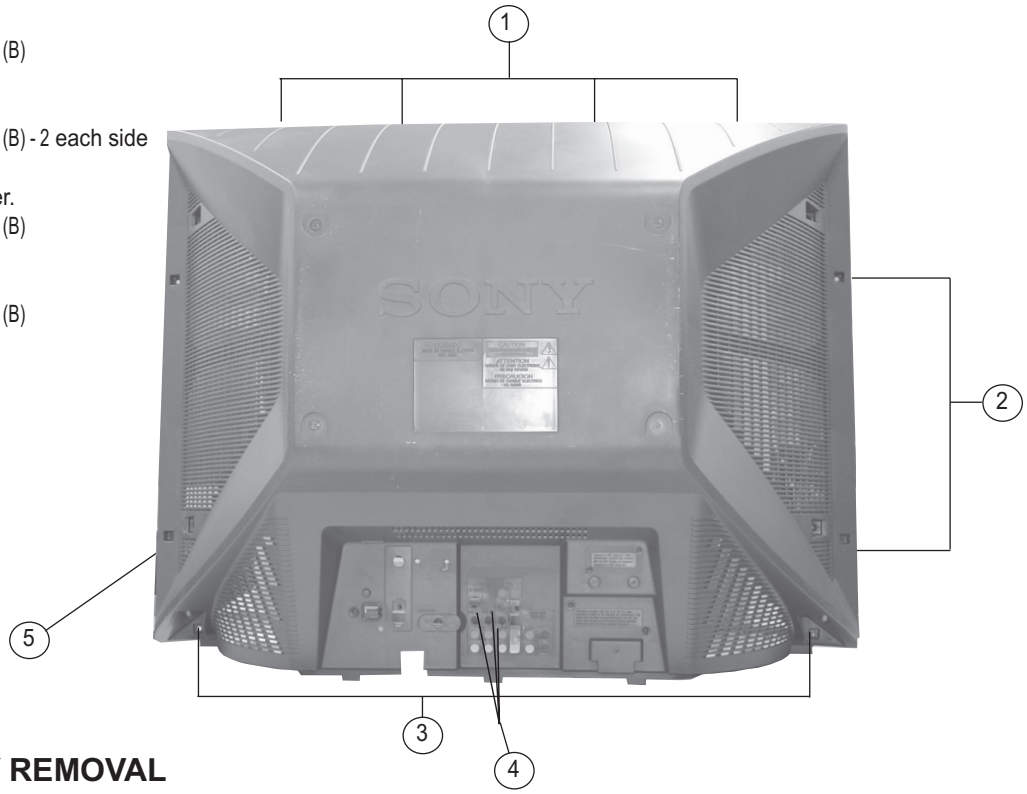
① Remove screws from top of cover.
4 Screws SCREW +BVTP 4X16 TYPE2 TT (B)

② Remove screws from sides of cover.
4 Screws SCREW +BVTP 4X16 TYPE2 TT (B) - 2 each side

③ Remove screws from bottom of cover.
2 Screws SCREW +BVTP 4X16 TYPE2 TT (B)

④ Remove screws from back of cover.
3 Screws SCREW +BVTP 3X12 TYPE2 TT (B)

⑤ Remove rear cover



1-2. CHASSIS ASSEMBLY REMOVAL

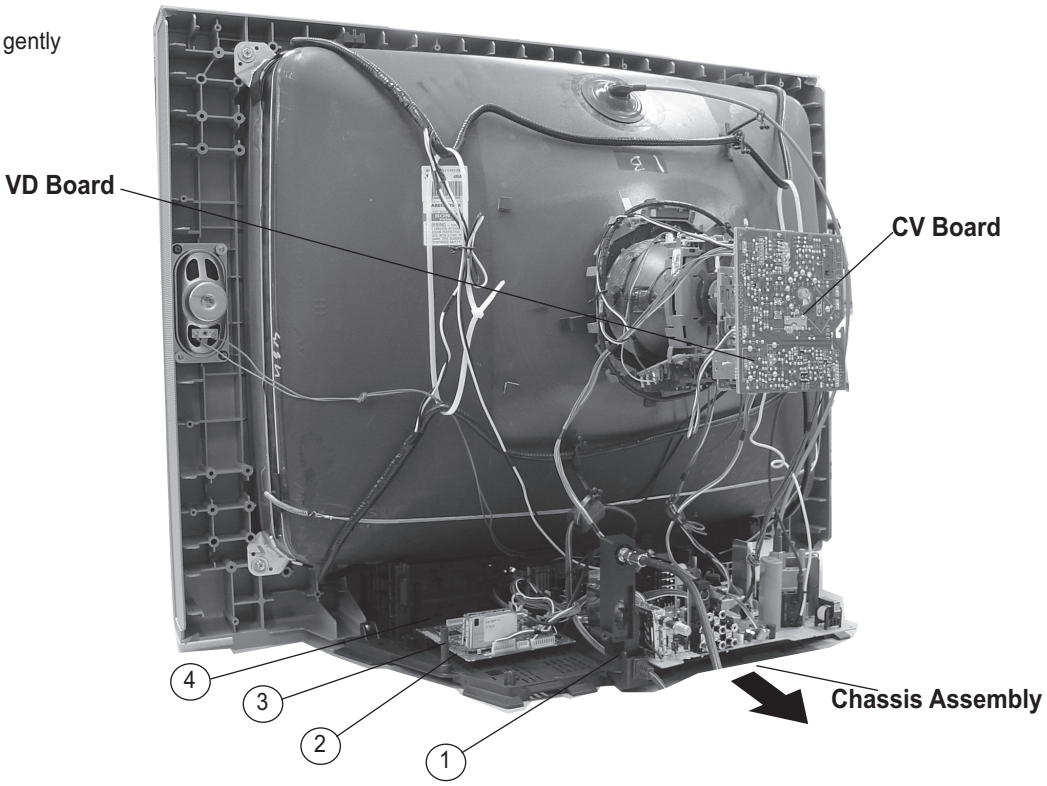
① Release the M Board.

② Release the A Board wires from Clip Holder.

③ Press on catch tab to release the A Board.

④ Remove Power Cable Holders by gently rocking to release clips.

⑤ Gently pull the chassis forward.



1-3. SERVICE POSITION

① Release the M Board.

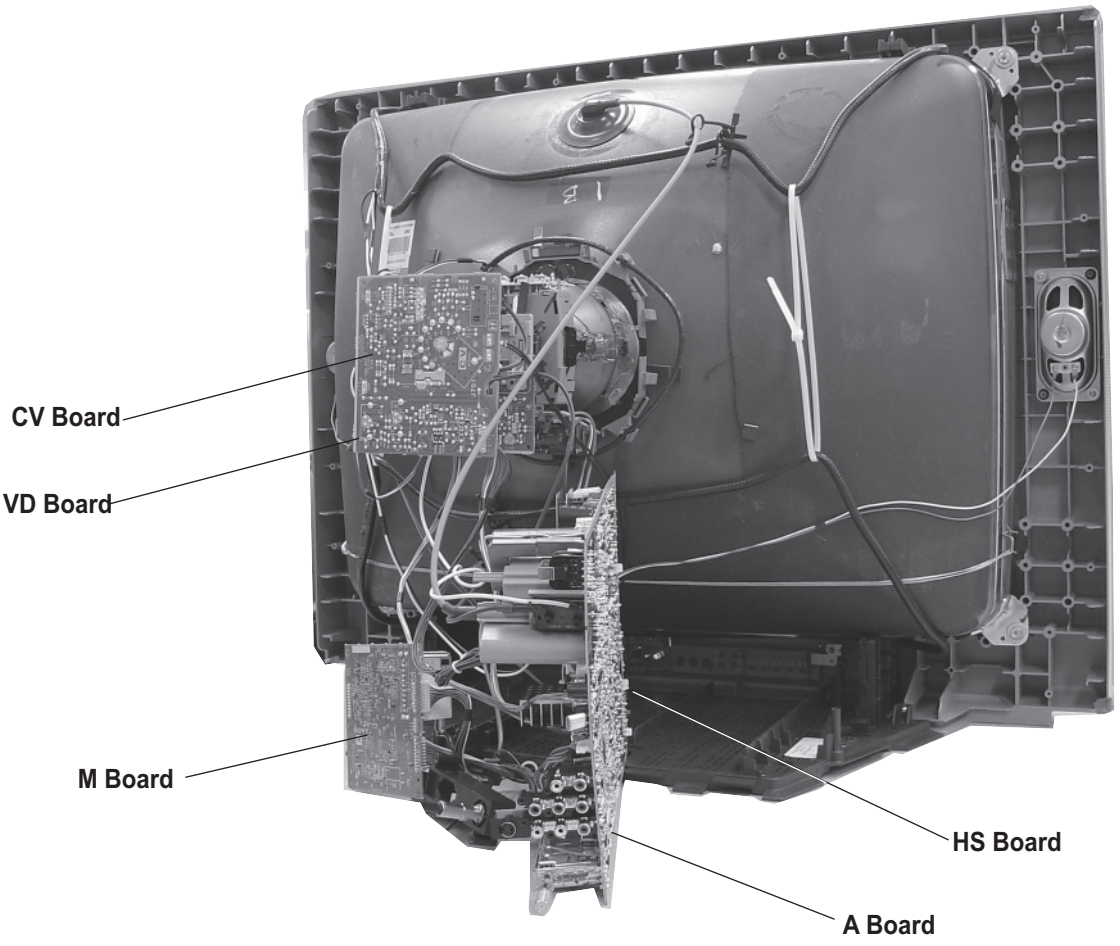
② Release the A Board wires from Clip Holder.

③ Press on catch tab to release A Board.

④ Remove Power Cable Holders by gently rocking to release clips.

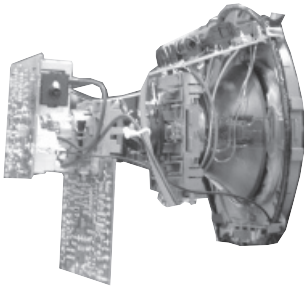
⑤ Gently pull the A Board forward until the HS Board has cleared the bracket.

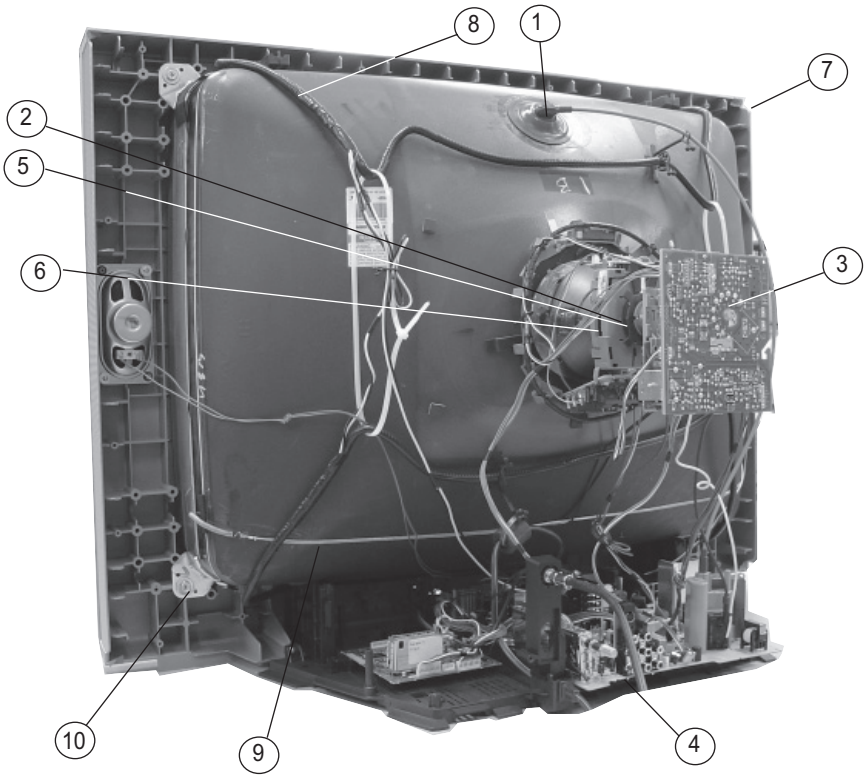
⑥ Gently continuing pulling the A Board and HS Board forward to place in service position.



1-4. PICTURE TUBE REMOVAL

WARNING: BEFORE REMOVING THE ANODE CAP
High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



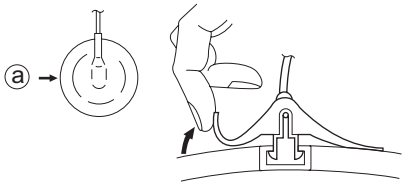


1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
3. Remove the CV Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the neck assembly fixing screw and remove.
6. Loosen the deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
8. Remove the degaussing coils.
9. Remove the CRT grounding strap and spring tension devices.
10. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT [Take care not to handle the CRT by the neck].

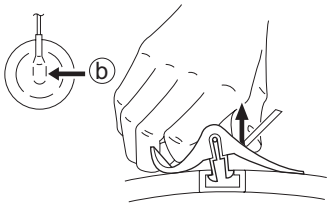
ANODE CAP REMOVAL PROCEDURE

WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.
NOTE: After removing the anode cap, short circuit the anode of the picture tube and the anode cap to either the metal chassis, CRT shield, or carbon painted on the CRT.

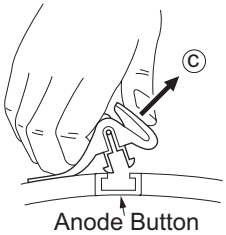
REMOVAL PROCEDURES



Turn up one side of the rubber cap in the direction indicated by arrow ⓐ .



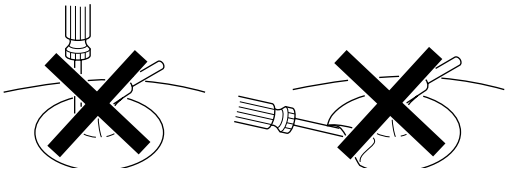
Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ⓑ .



When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow ⓒ .

HOW TO HANDLE AN ANODE CAP

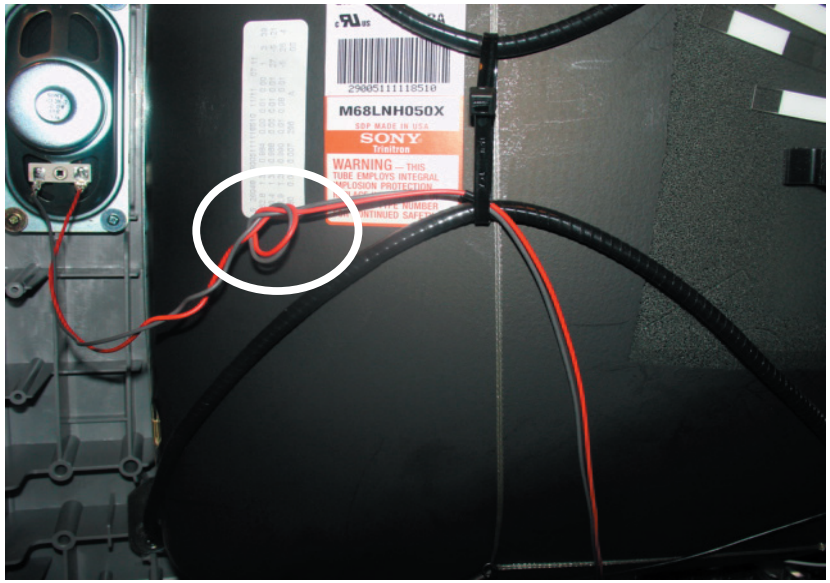
1. Do not use sharp objects which may cause damage to the surface of the anode cap.
2. To avoid damaging the anode cap, do not squeeze the rubber covering too hard. A material fitting called a shatter-hook terminal is built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.

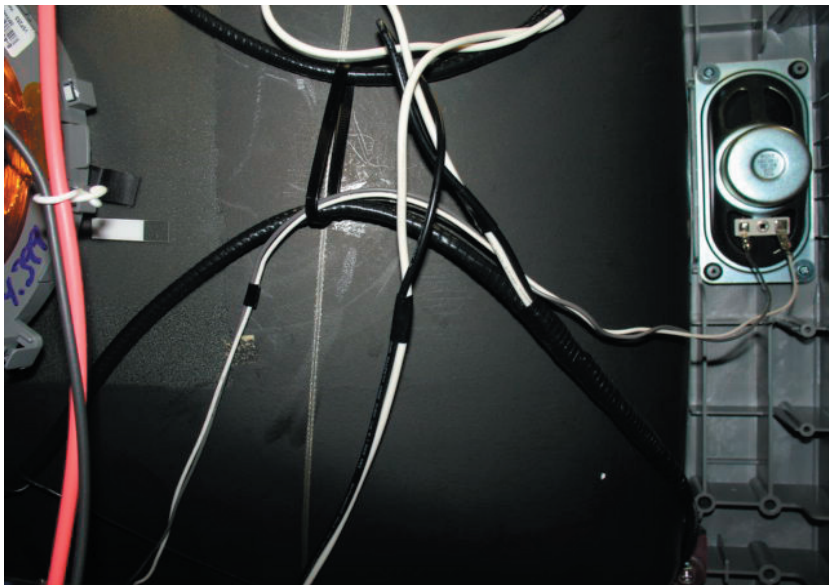


CABLE WIRE DRESSING

KD-27FS170 MODELS ONLY

KD-27FS170

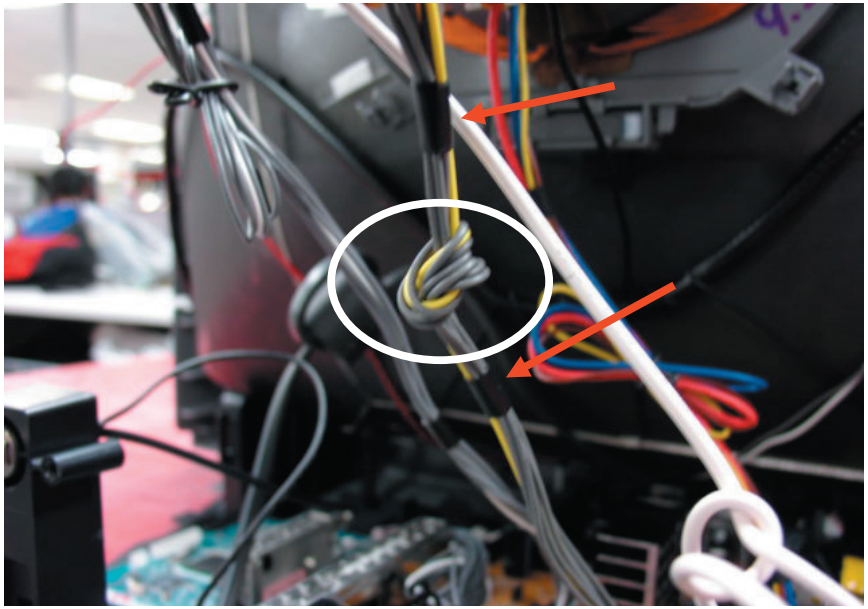




- Dress Right & left speaker wire through DGC's tie wrap as picture shows.
- Make a knot in Right speaker wire as shown in picure

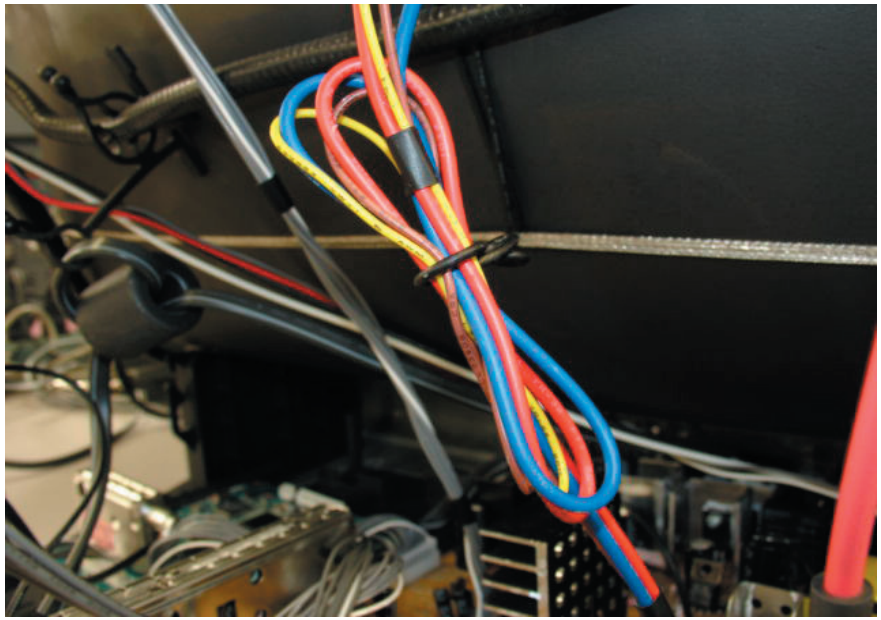
KD-27FS170

Dress RGB harness (A/CN301~ C/CN705) using a 9mm purse lock (3-703-982-02).

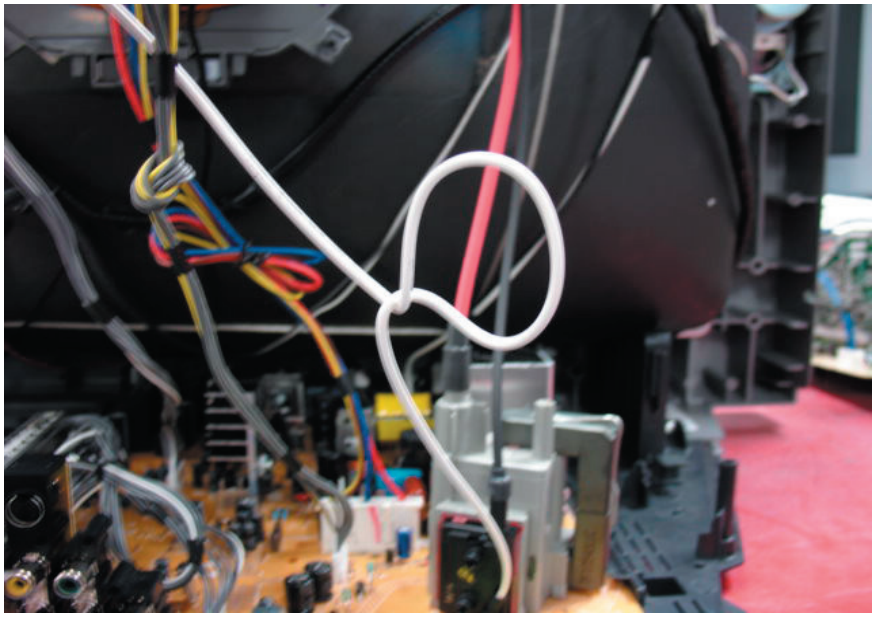


Make a knot in Heater (A/CN503~C/CN901) harness between black tapes as shown in picture.

KD-27FS170

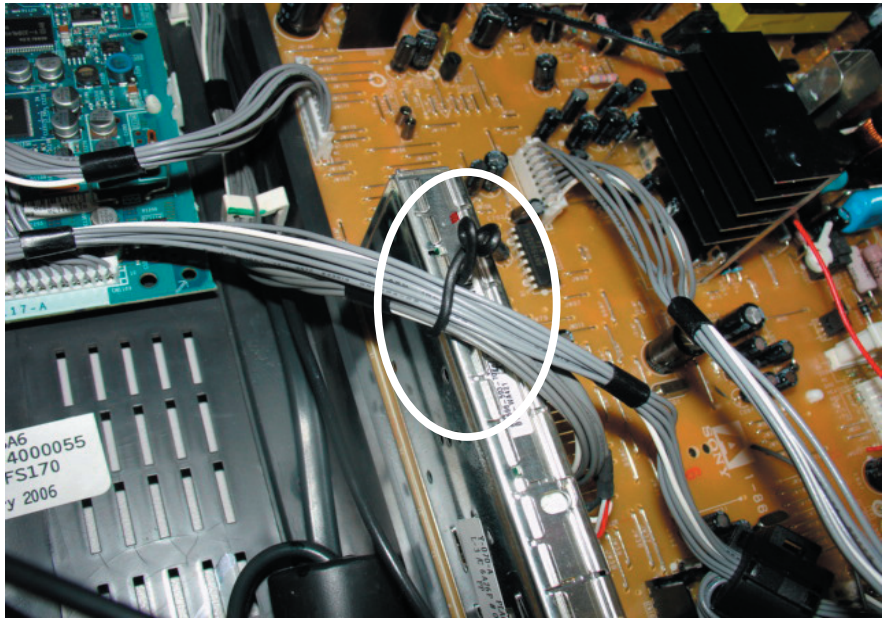


Dress DY's lead wire using a 9mm purse lock (3-703-982-02).

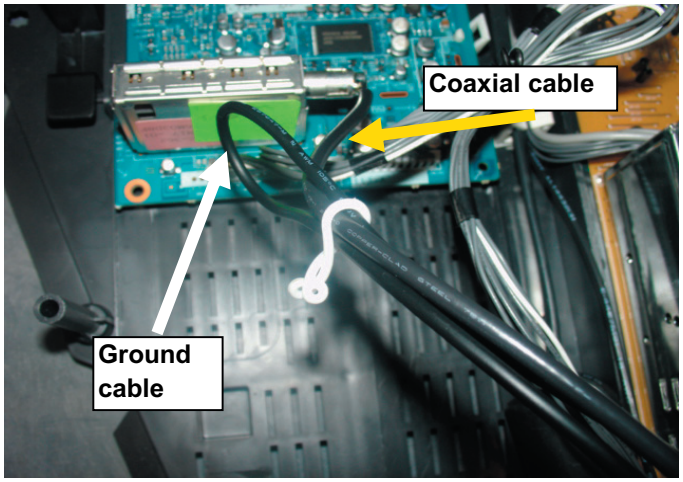


Dress G2 wire twist once as picture shown, do not over stress wire.

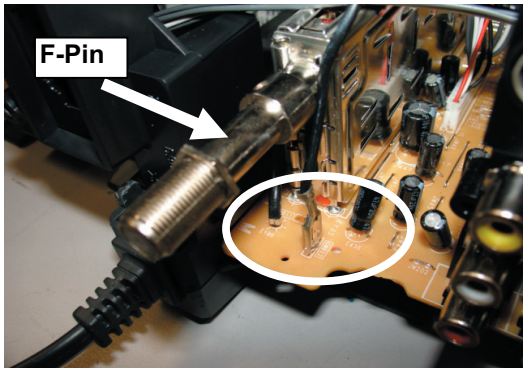
KD-27FS170



Dress 9P harness (A/CN004~M/CN1100) & 12P (HS/CN1004~A/CN303 using a 9mm purse lock (3-703-982-02) & pass over analog tuner as shown in picture.

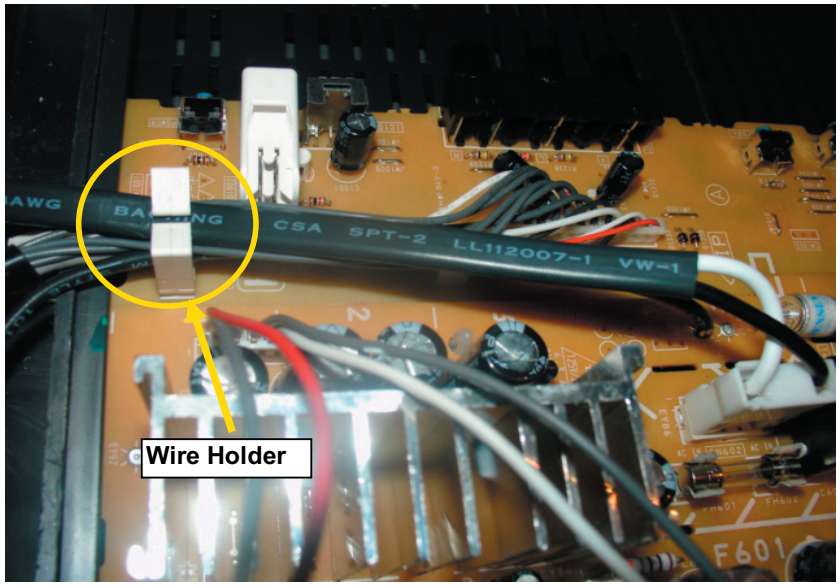


Dress ground & coaxial cable of digital module using a 5mm purse lock (3-703-981-02) as shown in picture.

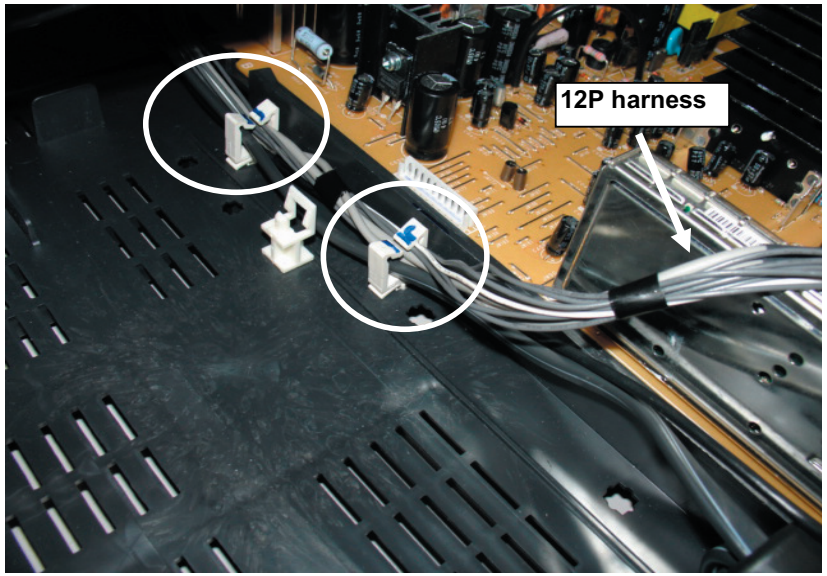


Connect ground cable in plug CN612 & pass beside F-Pin as shown in picture.

KD-27FS170

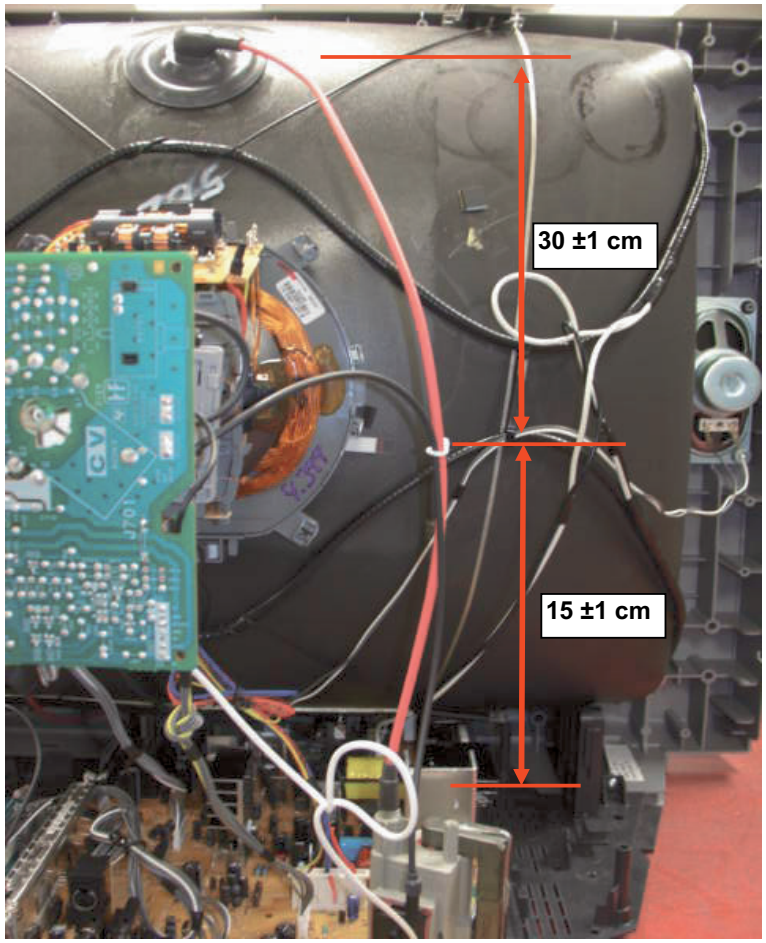


- Fix 12P harness (HS/CN1004~A/CN303) ,Lightening cable & AC-Cord using a wire holder (4-065-850-11)

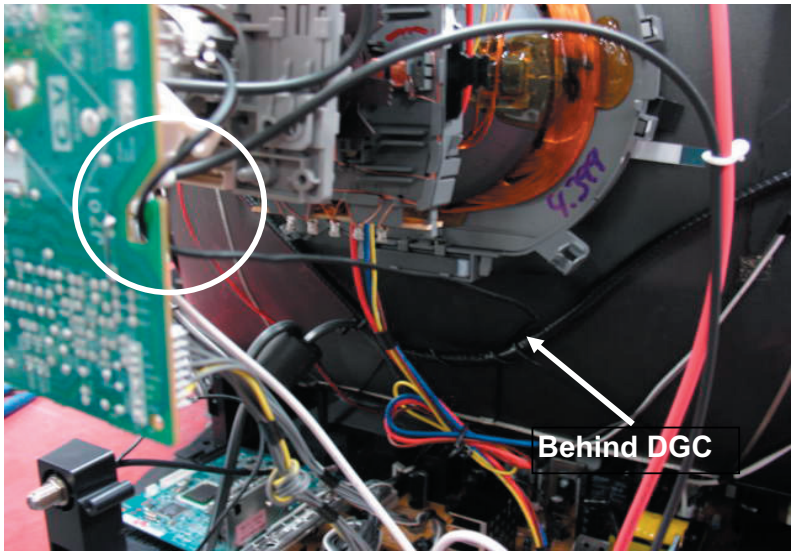


- Fix12P (HS/CN1004~A/CN303) harness, lightening cable & AC-Cord using 2 wire holder (4-065-850-11). - Pass 12P (HS/CN1004~A/CN303) over tuner as shown in picture.

KD-27FS170



Dress focus lead and HV cable together using 5mm purse lock (3-703-981-02)



Dress CRT ground behind DGC & pass through CV board hook as shown in picture.

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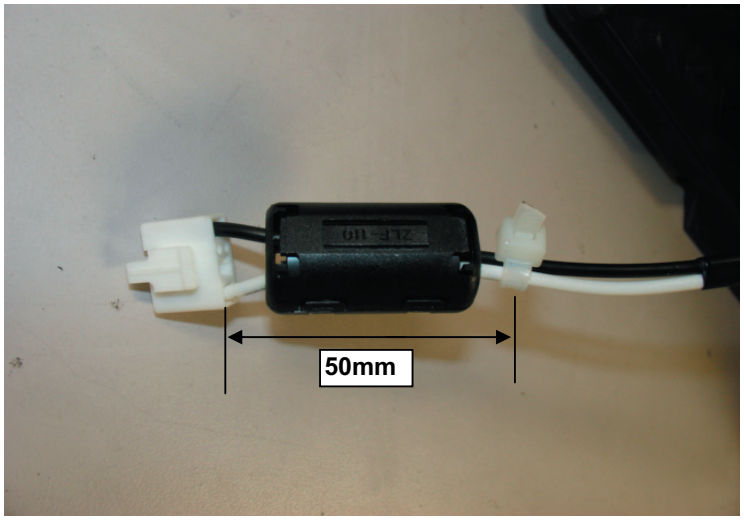
Pass audio ferrite beside heat sink as shown in picture (left side of heat sink back view)



Install Chisilin ferrite core 1-500-586-11 on DGC
and use a cable tie 4-041-041-11 to avoid movement of ferrite as shown in picture.

KD-32FS170 MODELS ONLY

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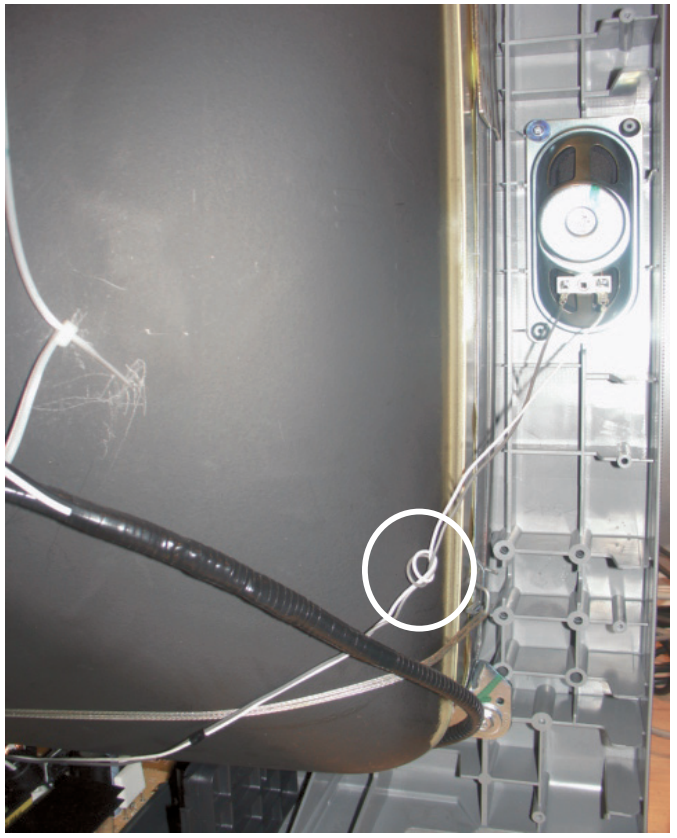
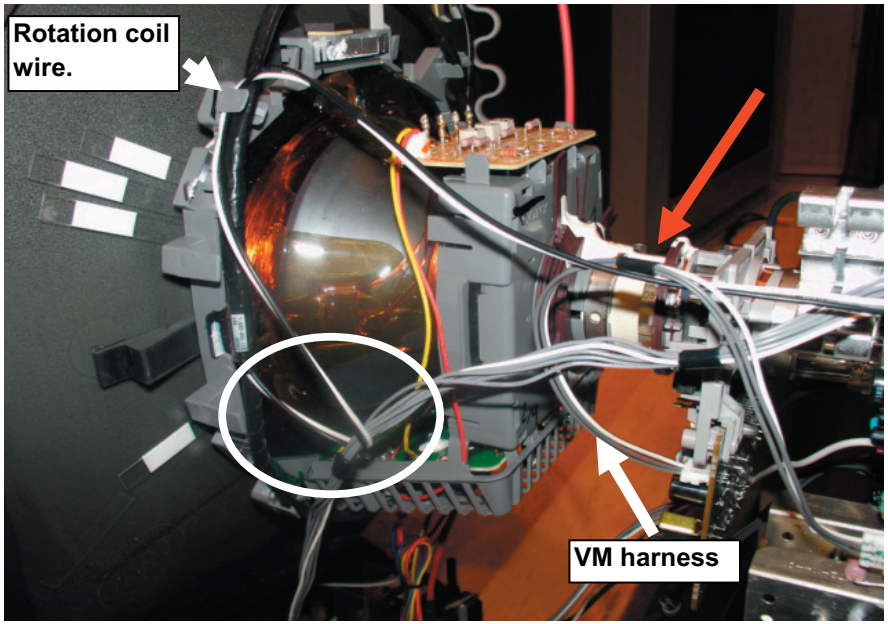
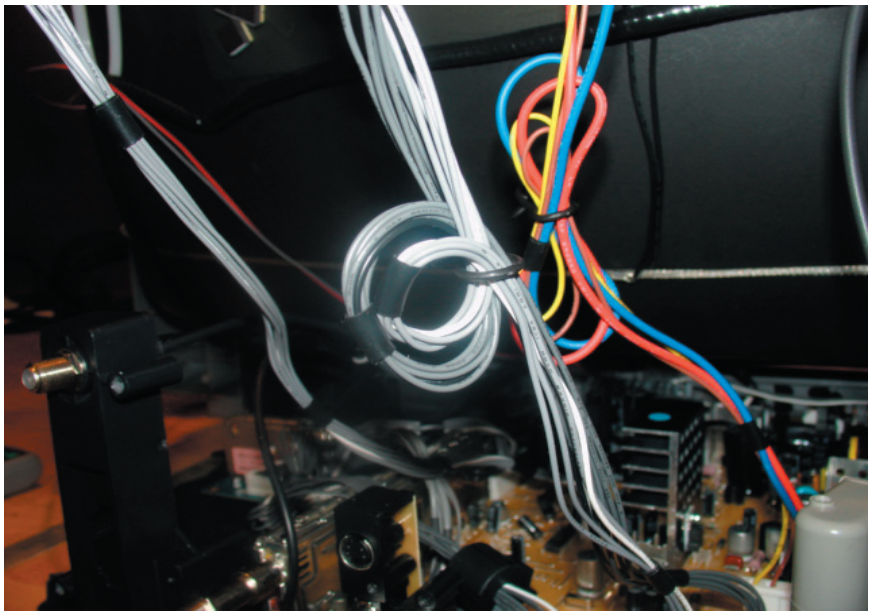


- Dress Right speaker wire through DGC's tie wrap.
- Dress Left speaker wire under DGC and make a knot as picture shows.

KD-32FS170

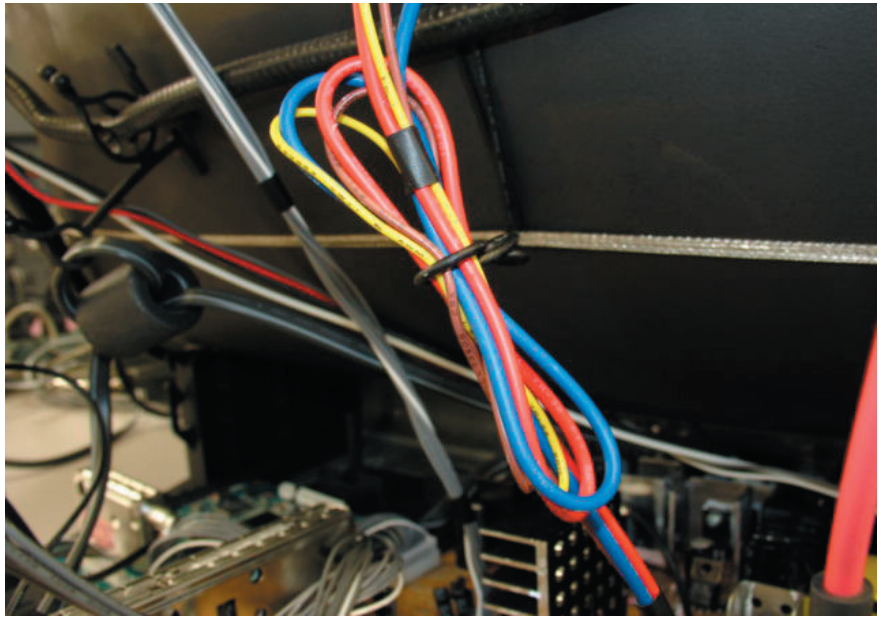


- Pass RGB harness (A/CN301~ C/CN705) through rotation coil using.
- Install rotation coil lead wire under DY clip.
- Pass VM harness over rotation coil lead & RGB harness as shown in picture.



Dress Heater (A/CN503~C/CN901) & Dinamic focus (A/CN502~VD/CN800) harness, make a loop using a 9mm purse lock (3-703-982-02) as shown in picture.

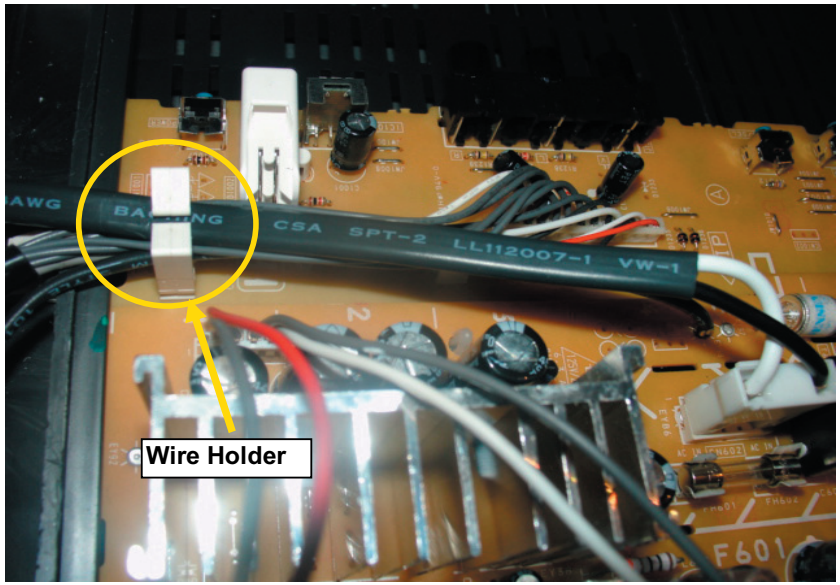
KD-32FS170



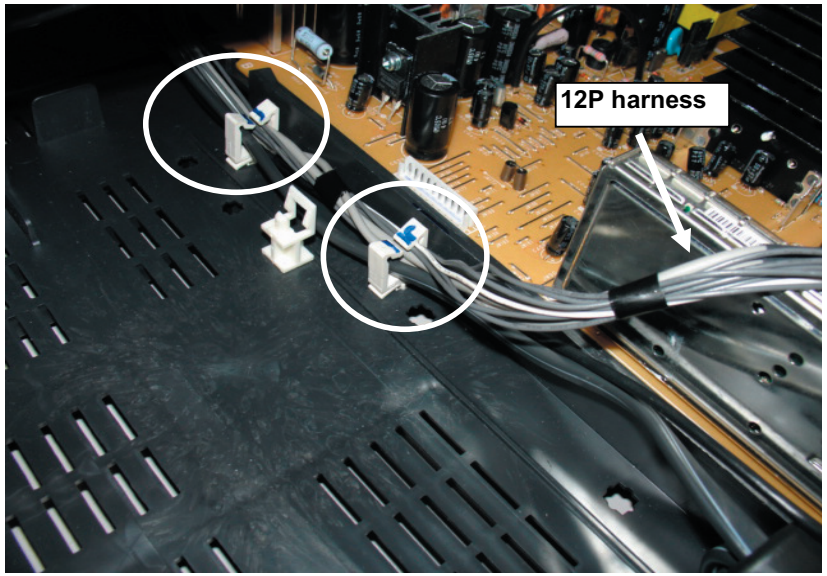
Dress DY's lead wire using a 9mm purse lock (3-703-982-02).

Dress G2 wire twist once as picture shown, do not over stress wire.

KD-32FS170

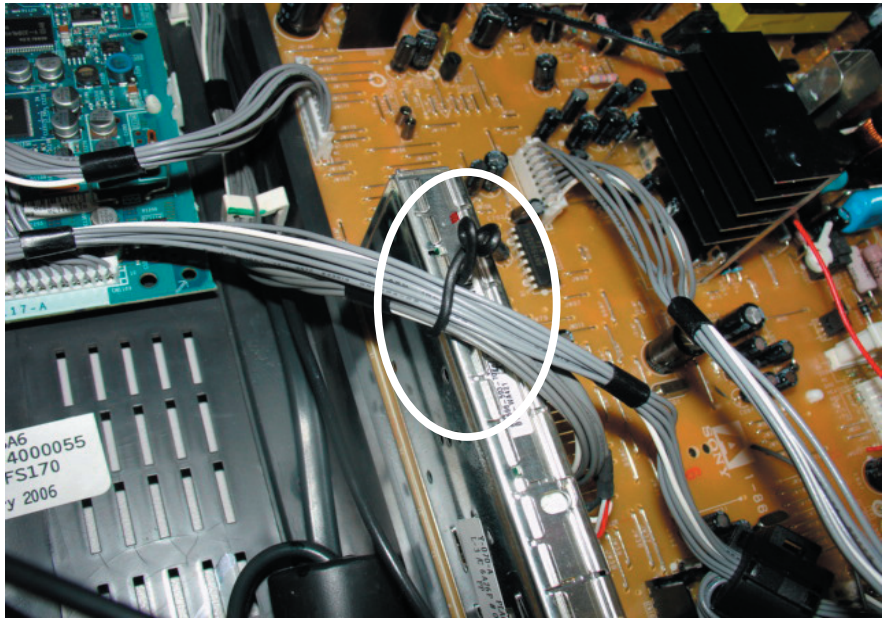


- Fix 12P harness (HS/CN1004~A/CN303) ,Lightening cable & AC-Cord using a wire holder (4-065-850-11)

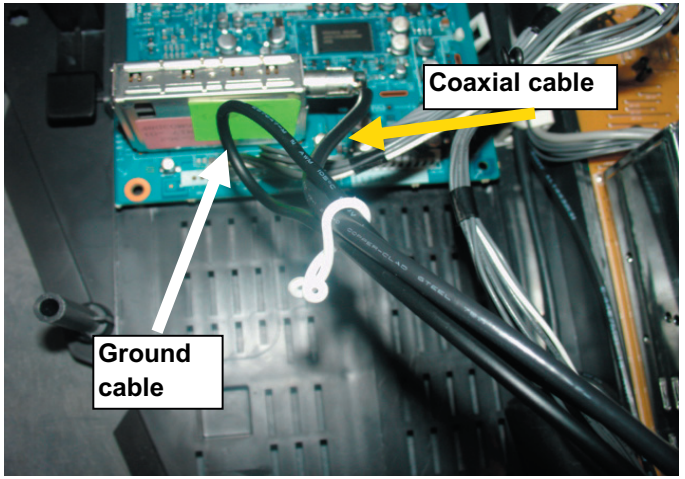


- Fix12P (HS/CN1004~A/CN303) harness, lightening cable & AC-Cord using 2 wire holder (4-065-850-11). - Pass 12P (HS/CN1004~A/CN303) over tuner as shown in picture.

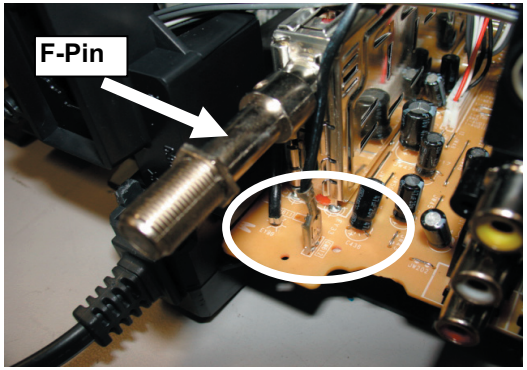
KD-32FS170



Dress 9P harness (A/CN004~M/CN1100) & 12P (HS/CN1004~A/CN303 using a 9mm purse lock (3-703-982-02) & pass over analog tuner as shown in picture.

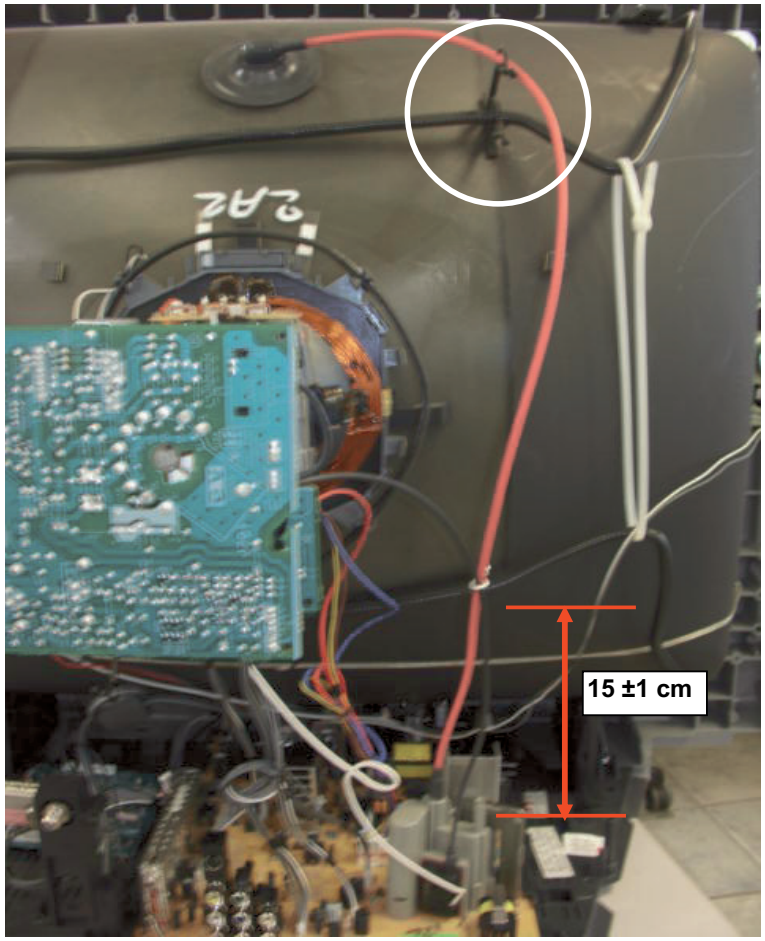


Dress ground & coaxial cable of digital module using a 5mm purse lock (3-703-981-02) as shown in picture.

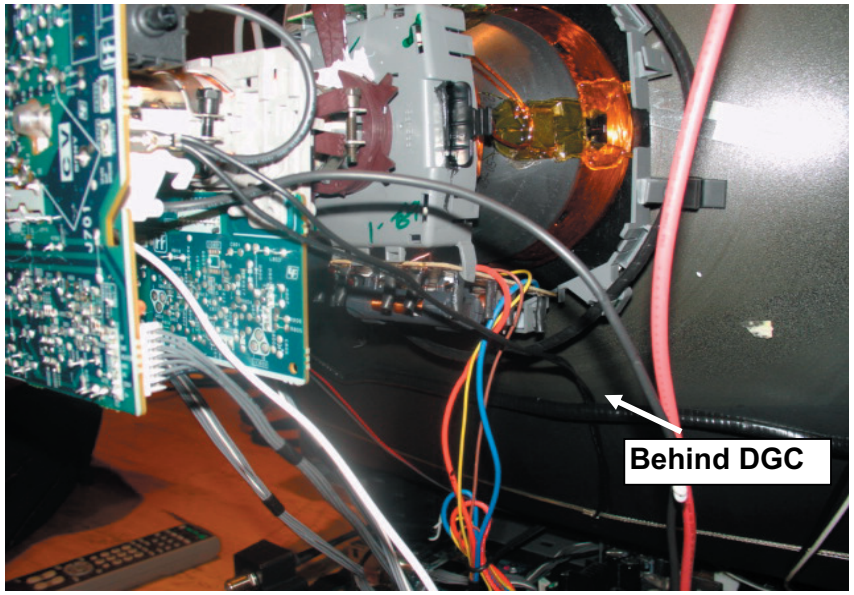


Connect ground cable in plug CN612 & pass beside F-Pin as shown in picture.

KD-32FS170



Install purse lock (4-081-411-02) using carbon paint as reference. Dress focus lead and HV cable together using 5mm purse lock (3-703-981-02)



Dress CRT ground behind DGC & pass beside VD board and under Focus lead as shown in picture.

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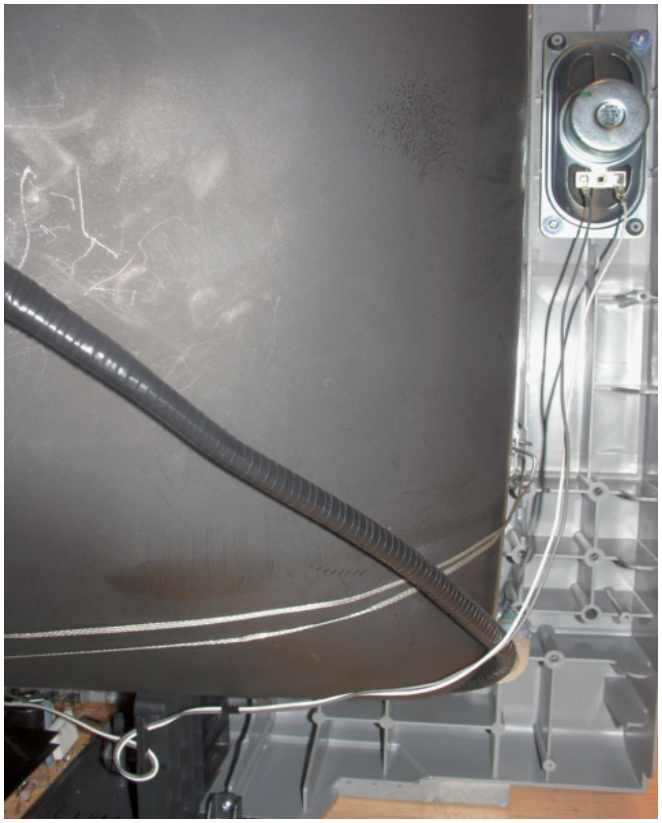
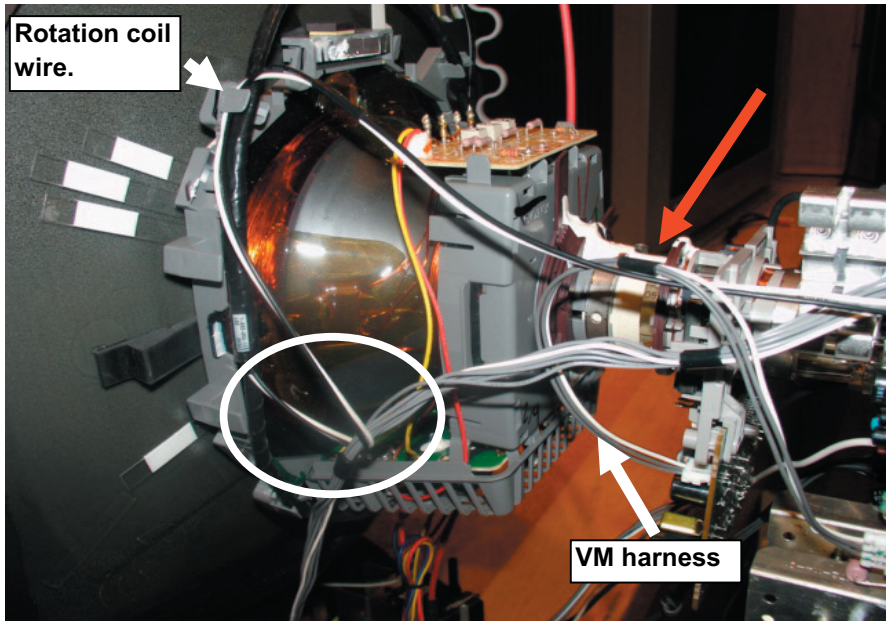
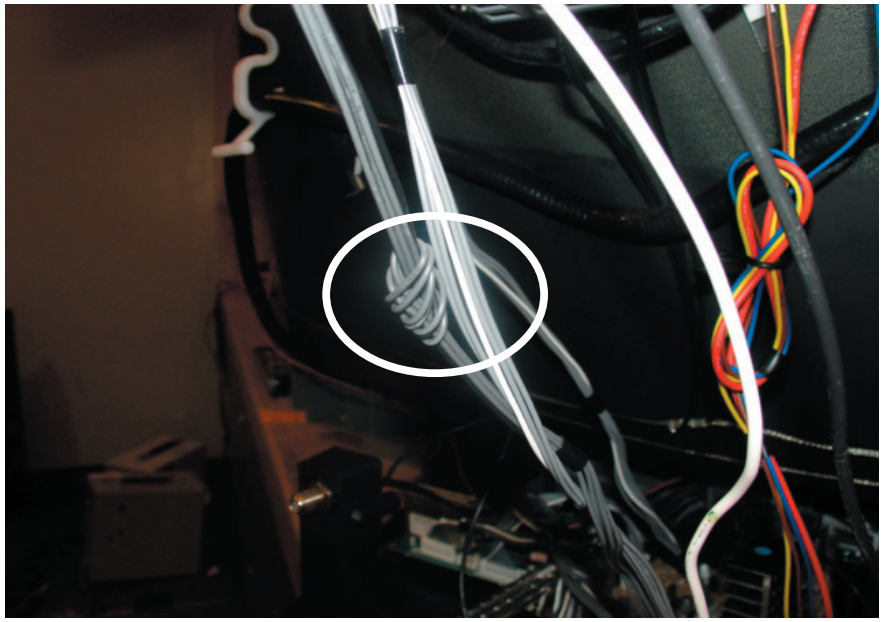


- Dress Right speaker wire using CRT's hook (2 loops).
- Dress Left speaker wire using CRT's hook (1 loop) as picture shows.

KD-36FS170

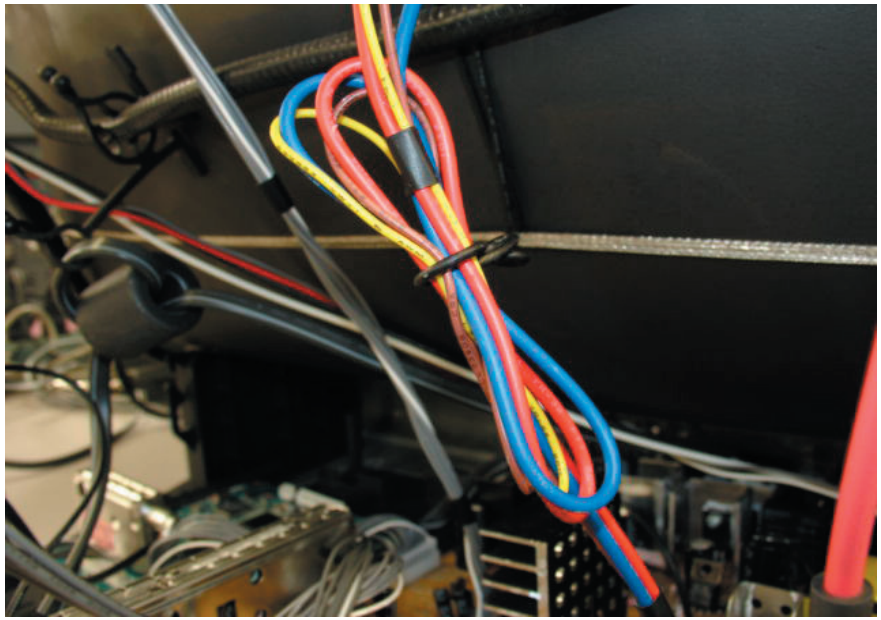


- Pass RGB harness (A/CN301~ C/CN705) through rotation coil using.
- Install rotation coil lead wire under DY clip.
- Pass VM harness over rotation coil lead & RGB harness as shown in picture.

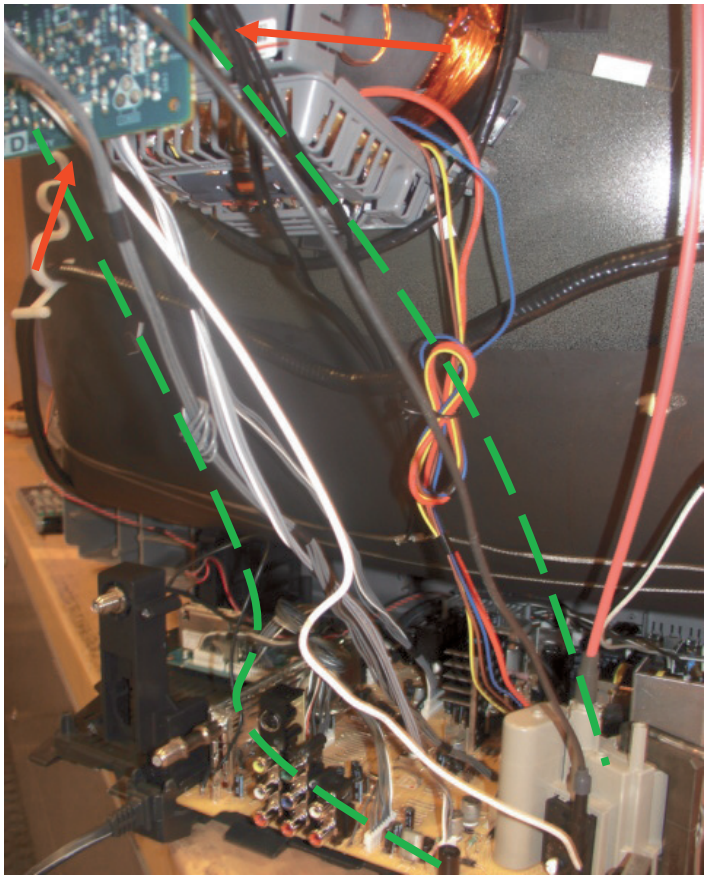


Make a knot in Heater harness (A/CN503~C/CN901) and interlace once with Dinamic focus (A/CN502~VD/CN800) harness, as shown in picture.

KD-36FS170

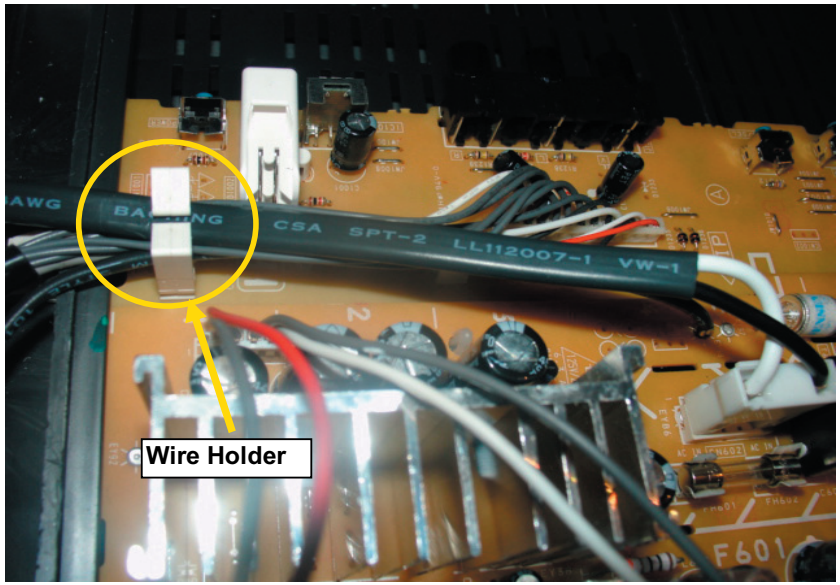


Dress DY's lead wire using a 9mm purse lock (3-703-982-02).

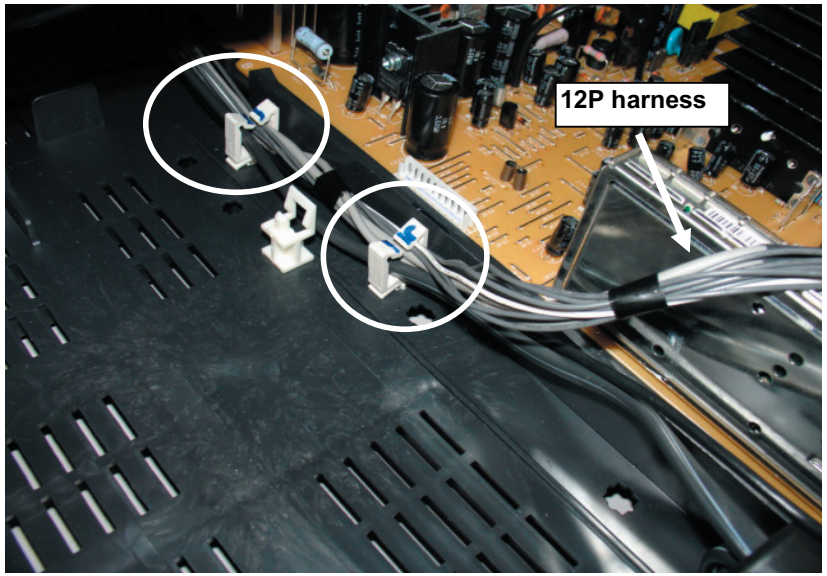


Dress G2 & Focus wire as shown in picture, G2 wire behind VD board & Focus wire beside VD board.

KD-36FS170

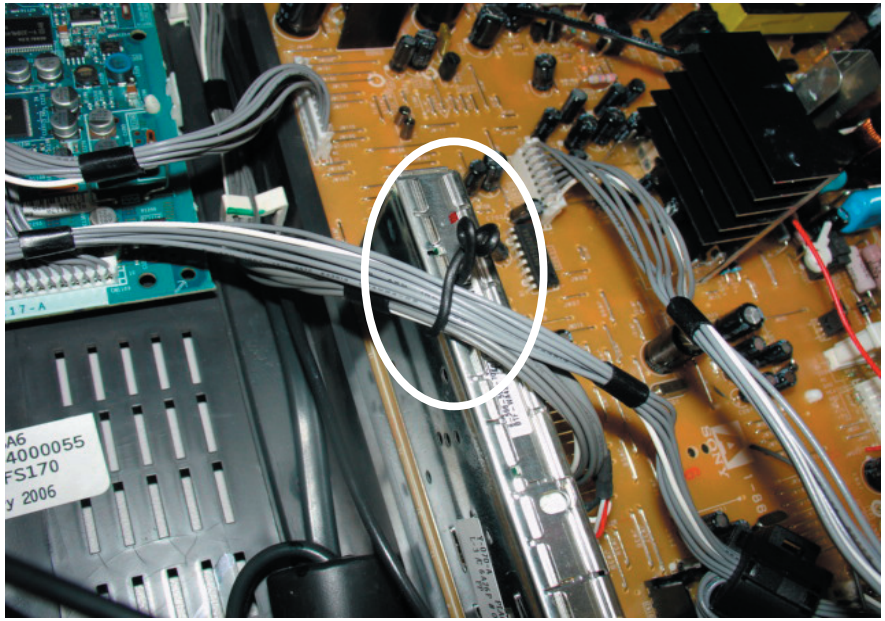


- Fix 12P harness (HS/CN1004~A/CN303) ,Lightening cable & AC-Cord using a wire holder (4-065-850-11)

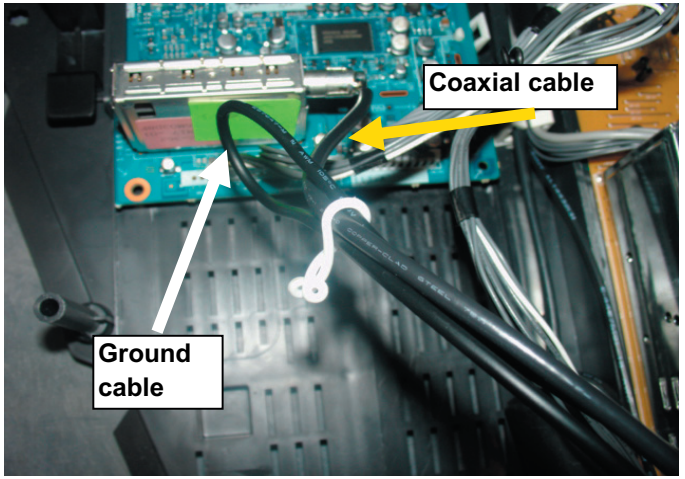


- Fix12P (HS/CN1004~A/CN303) harness, lightening cable & AC-Cord using 2 wire holder (4-065-850-11). - Pass 12P (HS/CN1004~A/CN303) over tuner as shown in picture.

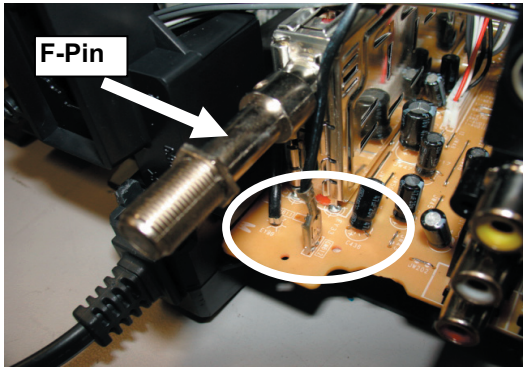
KD-36FS170



Dress 9P harness (A/CN004~M/CN1100) & 12P (HS/CN1004~A/CN303 using a 9mm purse lock (3-703-982-02) & pass over analog tuner as shown in picture.

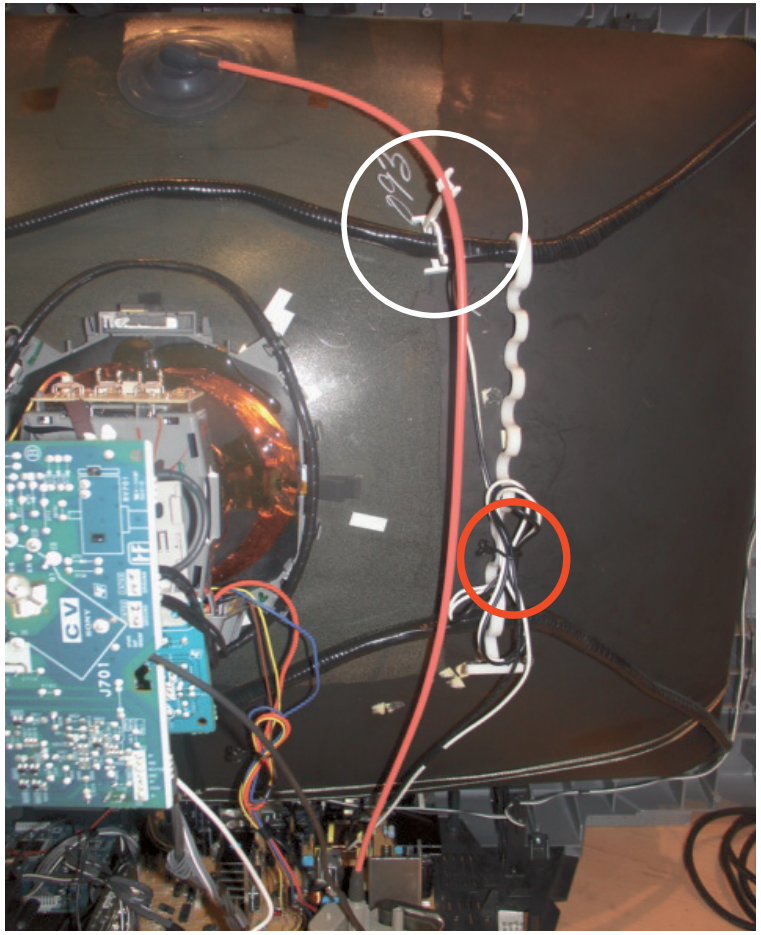


Dress ground & coaxial cable of digital module using a 5mm purse lock (3-703-981-02) as shown in picture.

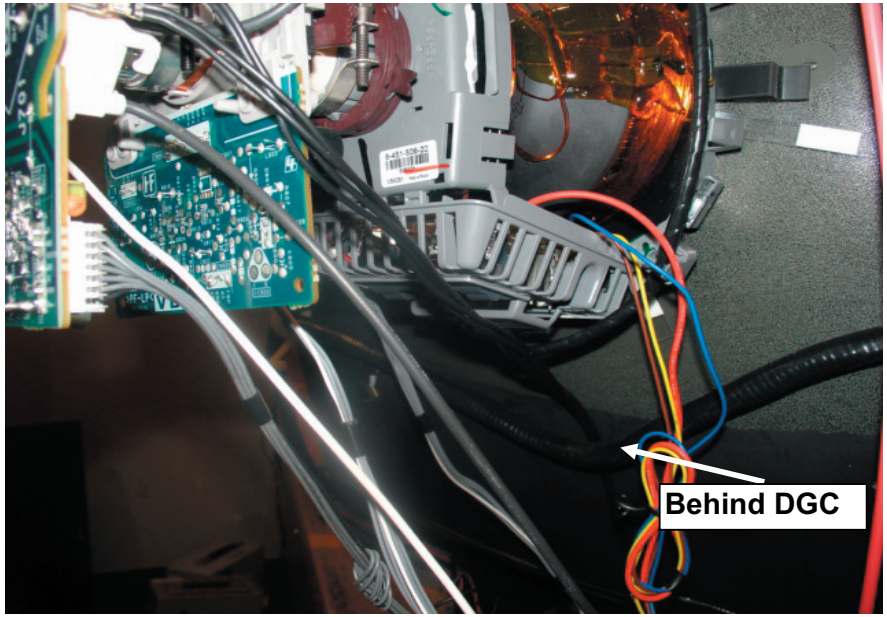


Connect ground cable in plug CN612 & pass beside F-Pin as shown in picture.

KD-36FS170



- Fix HV Cable using a purse lock (4-089-469-11) take carbon paint as reference.
- Fix DGC lead wire to DGC's tie wrap with a 9mm purse lock (3-703-982-02)



Dress CRT ground behind DGC & pass beside VD board as shown in picture.

SECTION 2: SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

Set the controls as follows unless otherwise noted:
VIDEO MODE: Pro
PICTURE CONTROL: Normal
BRIGHTNESS CONTROL: Normal

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)
5. White Balance

Note Test Equipment Required:

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter

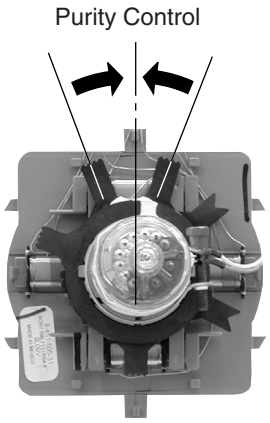
2-1. BEAM LANDING

Before beginning adjustment procedure:

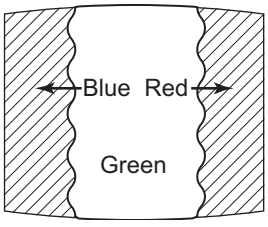
1. Feed in the white pattern signal.

Adjustment Procedure

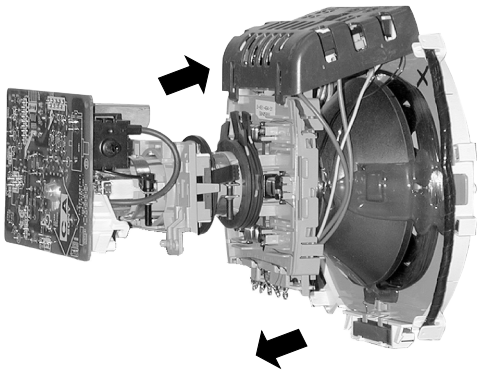
1. Input a raster signal with the pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:

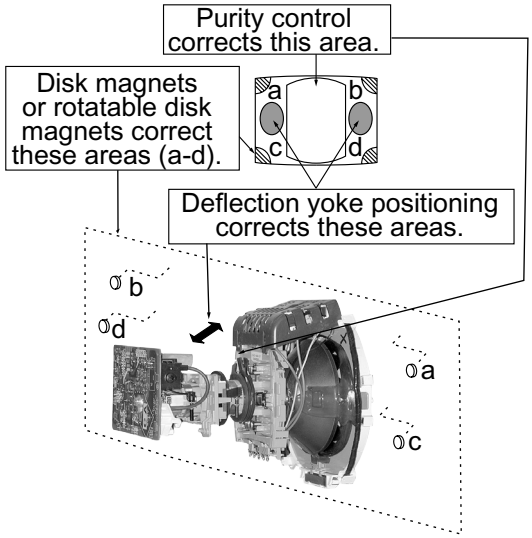


3. Turn the raster signal of the pattern generator to green.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are even on both sides.



5. Move the deflection yoke forward, and adjust so that the entire screen becomes green.
6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. If landing at the corner is not right, adjust by using the disk magnets.





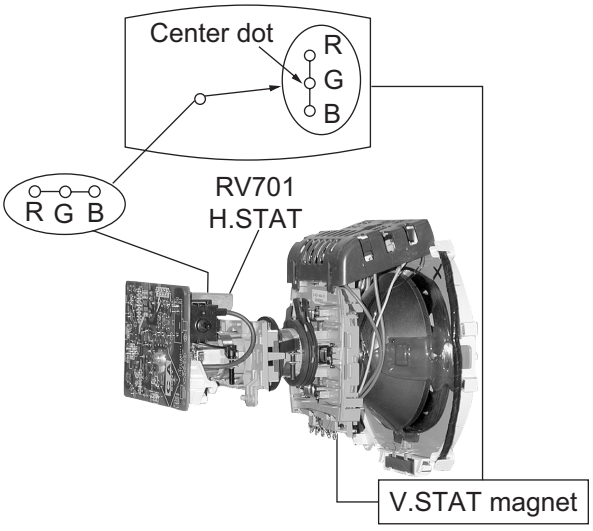
2-2. CONVERGENCE

Before starting convergence adjustments:

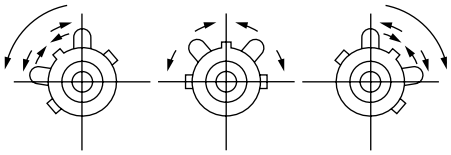
1 Perform FOCUS, VLIN and VSIZE adjustments.
2. Set BRIGHTNESS control to minimum.
3. Feed in dot pattern.

Vertical Static Convergence

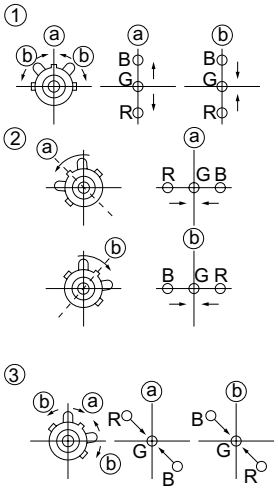
1. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen.



2. Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



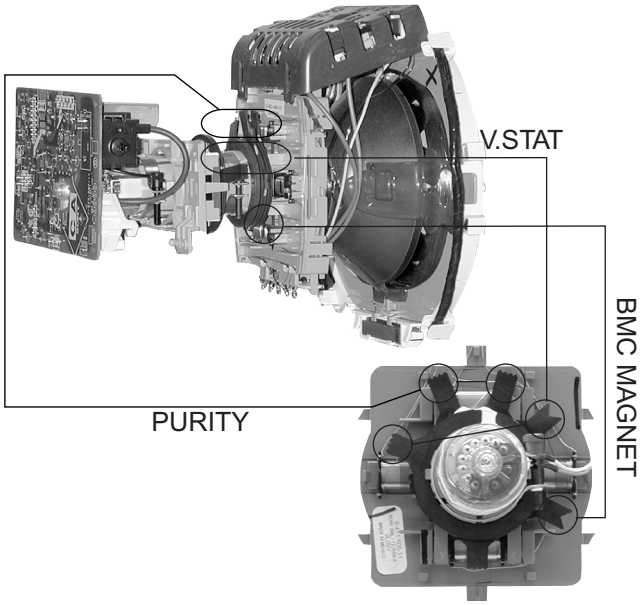
When the V. STAT magnet is moved in the direction of arrow a and b, red, green, and blue dots move as shown below:



Horizontal Static Convergence

If the blue dot does not converge with the red and green dots, perform the following:

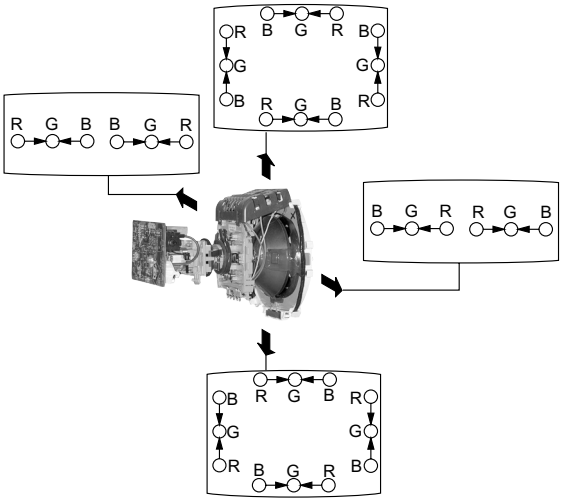
1. Move H STAT VR magnet (a) to correct insufficient H.Static convergence.



Dynamic Convergence Adjustment

Before performing this adjustment, perform Horizontal and Vertical Static Convergence Adjustment.

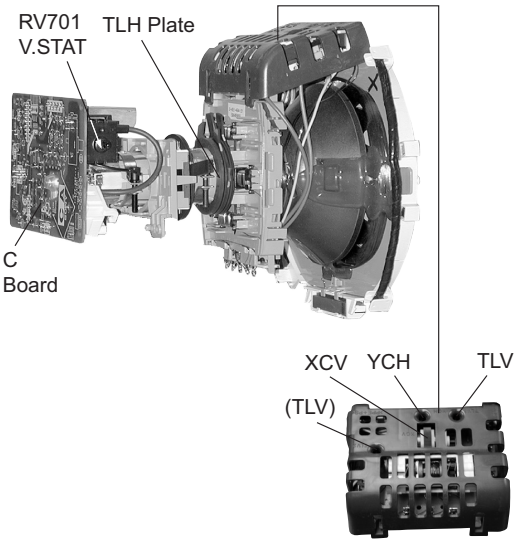
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below:

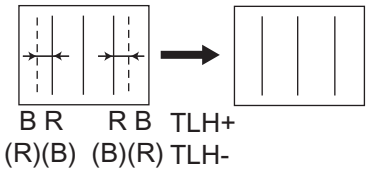


4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

TLH Plate Adjustment

1. Input crosshatch pattern.
2. Adjust PICTURE QUALITY to standard, PICTURE and BRIGHTNESS to 50%, and OTHER to standard.
3 Adjust the Horizontal Convergence of red and blue dots by tilting the TLH plate on the deflection yoke.

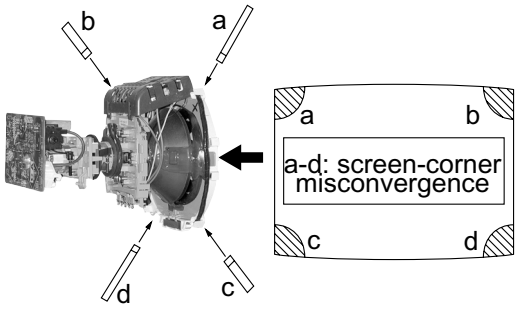




4. Adjust XCV core to balance X axis.
5. Adjust YCH VR to balance Y axis.
6. Adjust vertical red and blue convergence with V.TILT (TLV VR.)
   Note: Perform adjustment 3-6 while tracking items 1 and 2.

Screen-Corner Convergence

1. Affix a permalloy assembly corresponding to the misconverged areas:

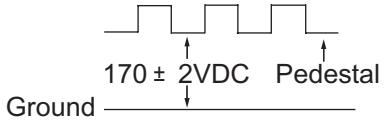


2-3. FOCUS

1. Adjust FOCUS control for best pictures.

2-4. SCREEN (G2)

1. Input a dot pattern.
2. Set the PICTURE and BRIGHTNESS controls at minimum and COLOR control at normal.
3. Adjust SBRT, GCUT, BCUT in service mode with an oscilloscope as shown below so that voltages on the red, green, and blue cathodes are 170 ± 2VDC.



4. Observe the screen and adjust SCREEN (G2) VR in FBT to obtain the faintly visible background of dot signal.

SECTION 3: SAFETY RELATED ADJUSTMENTS

3-1. ⋈ R529, R530, R531, R577 CONFIRMATION METHOD (HV HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components which are marked with ◪ on the schematic diagram:

Part Replaced (◪)	Adjustment (⋈)
C507, C511, C513, D519, D520, D521, IC001, IC501, IC601, IC602, PH601, R529, R530, R531, R577, T502, T503 (FBT), T505	HV HOLD-DOWN R529, R530, R531, R577

Preparation Before Confirmation

1. Using a Variac, apply AC input voltage: 120 +/- 2.0 VAC.
2. Turn the POWER switch ON.
3. Input a white signal and set the PICTURE and BRIGHT controls to maximum.
4. Confirm that the voltage of more than 23.0 VDC appears between TP85 and ground on the A Board.

Hold-Down Operation Confirmation

1. Connect the current meter between Pin 11 of the FBT (T503) and the PWB land where Pin 11 would normally attach. (See Figure 1).
2. Input a dot signal and set PICTURE and BRIGHTNESS to minimum: IABL = 2175 + 100/ -325 µA.
3. Confirm the voltage of A Board TP91 is 134.6 ± 1.0 VDC.
4. Connect the digital voltmeter and the DC power supply to TP85 and ground. (See Figure 1).
5. Increase the DC power voltage gradually until the picture blanks out.
6. Turn DC power source off immediately.
7. Read the digital voltmeter indication:
   Standard = 24.78 + 0.0/ - 0.1 VDC.
8. Input a white signal and set PICTURE and BRIGHTNESS to maximum: IABL = 2175 + 100/ -325 µA.
9. Repeat steps 4 to 7.

Hold-Down Readjustment

If the setting indicated in Step 2 of Hold-Down Operation Confirmation cannot be met, readjustment should be performed by altering the resistance value of R529, R530, R531 and R577 component marked with ⋈.

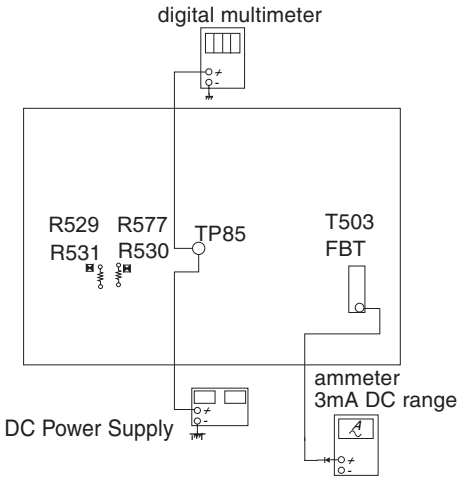


Figure 1

3-2. B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

Always perform the following adjustments when replacing the following components, which are marked with ◪ on the schematic diagram on the A Board:

Adjustment (◪)
A BOARD IC600, PH602

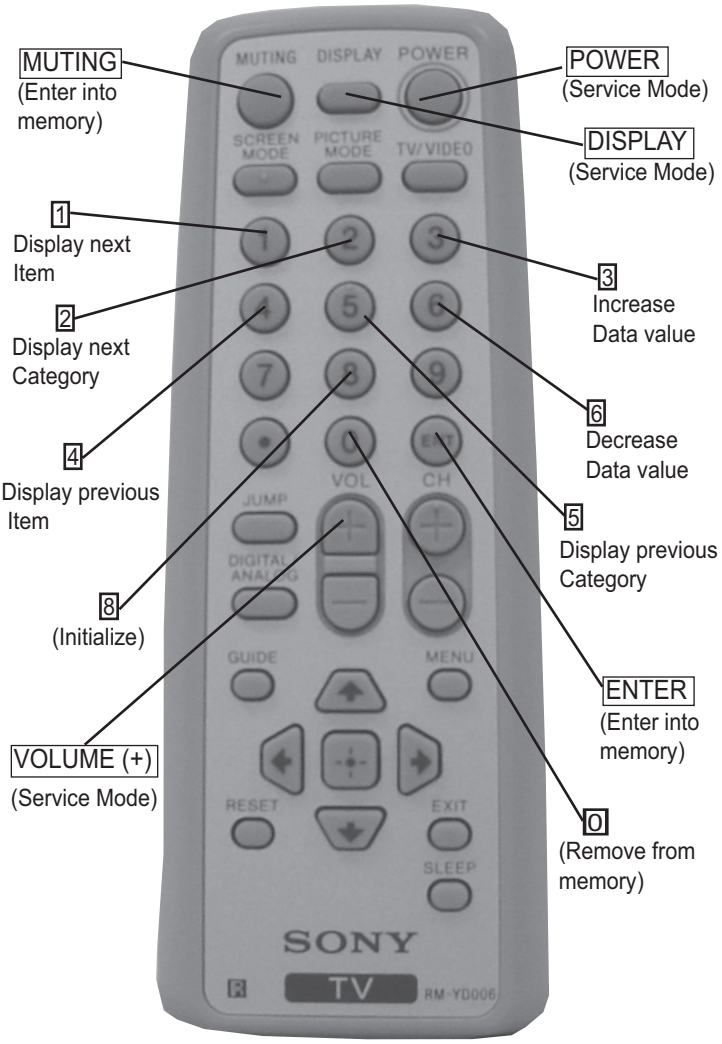
1. Using a Variac, apply AC input voltage: 130 + 2.0/-0.0 VAC
2. Input a monoscope signal.
3. Set the PICTURE control and the BRIGHT control to minimum.
4. Confirm the voltage on A Board between TP23 and ground is less than 136.5 VDC.
5. If step 4 is not satisfied, replace R529, R530, R531 and R577 on A Board and repeat the above steps.

SECTION 4: CIRCUIT ADJUSTMENTS

Electrical Adjustments by Remote Commander

Use the Remote Commander (RM-YD006) to perform the circuit adjustments in this section.
Test Equipment Required: 1. Pattern generator 2. Frequency counter 3. Digital multimeter 4. Audio oscillator

4-1. REMOTE ADJUSTMENT BUTTONS AND INDICATORS

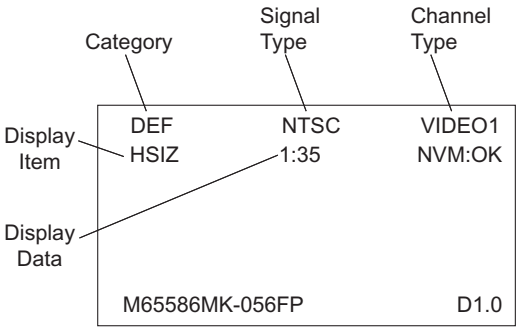


RM-YD006

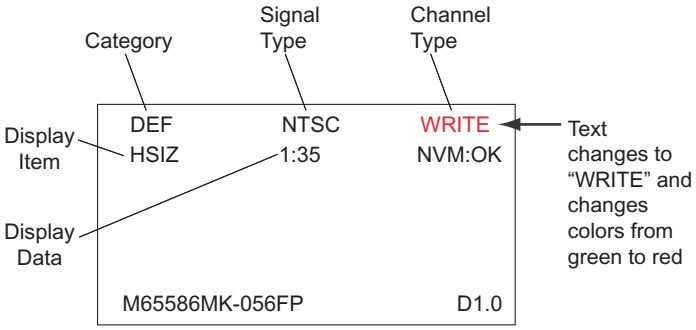
4-2. ACCESSING THE SERVICE ADJUSTMENT MODE

1. Standby mode (Power off).
2. Press the following buttons on the remote commander within a second of each other:
   DISPLAY / POWER → Channel 5 → Sound Volume + →

The screen displays the first service data category item.



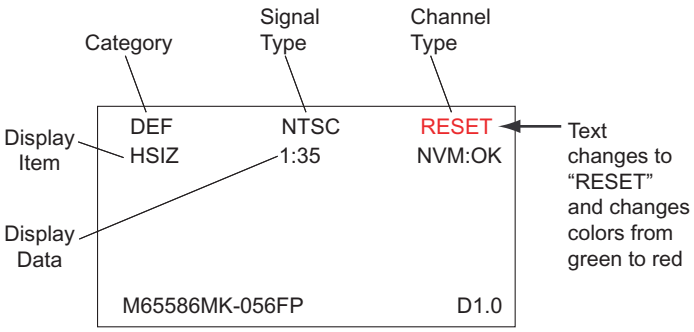
1. On the Remote Commander press 2 or 5 to select the category.
2. Press 1 or 4 to select the item.
3. Press 3 or 6 to change the data value.
4. Press MUTING then ENTER to write into memory.



Service Adjustment Mode Memory

Use the following procedure when adjusting IDs 0-7 and when replacing and adjusting IC002.

1. Access Service Adjustment Mode.
2. Press 8 then ENTER on the Remote Commander to initialize.



The TV powers off after completing the initialization process.

4-3. CONFIRMING SERVICE ADJUSTMENT CHANGES

1. After completing adjustments, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Access Service Adjustment Mode.
3. Using the buttons on the Remote Commander, locate the adjusted items again to confirm they were adjusted.

4-4. WHITE BALANCE ADJUSTMENTS

1. Input an entire white signal with burst.
2. Access Service Adjustment Mode.
3. Set the PICTURE and BRIGHTNESS to minimum.
4. Adjust with SBRT if necessary.
5. Press 2 or 5 to select the VP1 category.
6. Press 1 or 4 to display the GCUT item.
7. Press 3 or 6 to adjust for the best white balance.
8. Press 1 or 4 to display the BCUT item.
9. Press 3 or 6 to adjust for the best white balance.
10. Set the PICTURE and BRIGHTNESS to maximum.
11. Press 1 or 4 to display the GDRV item.
12. Press 3 or 6 to adjust for the best white balance.
13. Press 1 or 4 to display the BDRV item.
14. Press 3 or 6 to adjust for the best white balance.
15. Press MUTING then ENTER to save into the memory.

4-5. A BOARD ADJUSTMENTS

H. Frequency (Free Run) Check

1. Input a TV mode (RF) with no signal.
2. Connect a frequency counter to base of Q501 (TP-25 H. DRIVE) on the A Board.
3. Check H. Frequency for 15735 ± 200 Hz.

V. Frequency (Free Run) Check

1. Select video 1 with no signal input.
2. Set the conditions for a standard setting.
3. Connect the frequency counter to TP-27 (V OUT) or CN501 pin ⑥ (V DY+) and ground on the A Board .
4. Check that V. Frequency shows 60 ± 4 Hz.

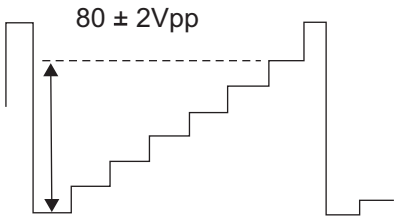
Drive (SCON)

1. Input a color-bar signal and set the level to 75%.
2. Set in Pro mode + PICTURE MAX.
3. Access Service Adjustment Mode.
4. Press 2 or 5 to select the VP1 category.
5. Press 1 or 4 to display the GON item.
6. Press 3 or 6 to adjust to 0.
7. Press 1 or 4 to display the BON item.
8. Press 3 or 6 to adjust to 0.

   Note: Leave RON set to “1”.

R ON:	ON	(1)
G ON:	OFF	(0)
B ON:	OFF	(0)

9. Connect an oscilloscope probe to C Board, CN705 pin3 (KR).
10. Press 1 or 4 to display the SCON item.
11. Press 3 or 6 to adjust the value of SCON to 80 ± 2Vpp.



12. Repeat steps 5 thru 8 to reset GON and BON values to “1”.

R ON:	ON	(1)
G ON:	ON	(1)
B ON:	ON	(1)

13. Press MUTING then ENTER to write into memory.

Display Position Adjustment (DISP)

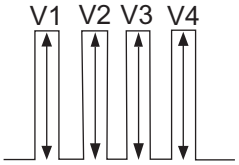
1. Input a color-bar signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the Microprocessor category.
4. Press 1 or 4 to display the DISP item.
5. Press 3 or 6 to adjust characters to the center.
6. Press MUTING then ENTER to write into memory.
7. Check to see if the text is displayed on the screen.

Sub Bright Adjustment (SBRT)

1. Input a monoscope signal.
2. Access Service Adjustment Mode.
3. Set the PICTURE and BRIGHTNESS to minimum.
4. Press 2 or 5 to select the VP1 category.
5. Press 1 or 4 to display the SBRT item.
6. Press 3 or 6 to obtain a faintly visible 20 IRE mark, after that increase +3 steps.
7. Press MUTING then ENTER to write into memory.

Sub Hue, Sub Color Adjustment (SHUE, SCOL)

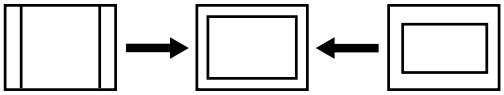
1. Input color-bar signal at 75%.
2. Access Service Adjustment Mode.
3. Set (PIC) to Max and (COL) to 50%.
4. Connect an oscilloscope probe to C Board, CN705 pin ④ (Blue Out).
5. Press 2 or 5 to select the VP1 category.
6. Press 1 or 4 to display the SHUE or SCOL item.
7. While showing the SHUE item, adjust the waveform by pressing 3 or 6 until the second and third bars show the same level (V2 = V3 < 0.15Vp-p). Set Sub Hue -2 Step.
8. While showing the SCOL item, adjust the waveform by pressing 3 or 6 until the first and fourth bars show the same level (V1 = V4 < 0.15Vp-p). Set Sub Col + 2 Step.



9. Press MUTING then ENTER to write into memory.

V. Size Adjustment (VSIZ)

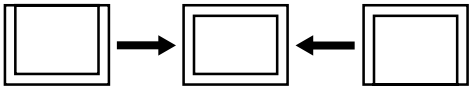
1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the VSIZ item.
5. Adjust value of VSIZ by pressing 3 or 6 for the best vertical size.
6. Press MUTING then ENTER to write into memory.



V. Center Adjustment (VPOS)

Perform this adjustment after performing H. Frequency (Free Run) Check.

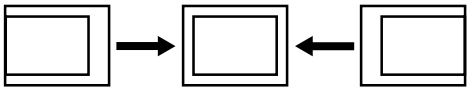
1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the VPOS item.
5. Adjust value of VPOS by pressing 3 or 6 for the best vertical center.
6. Press MUTING then ENTER to write into memory.



H. Center Adjustment (HPOS)

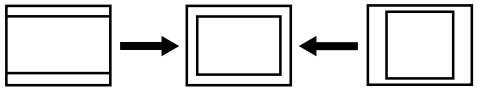
Perform this adjustment after performing H. Frequency (Free Run) Check.

1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the HPOS item.
5. Adjust the value of HPOS by pressing 3 or 6 for the best horizontal center.
6. Press MUTING then ENTER to write into memory.



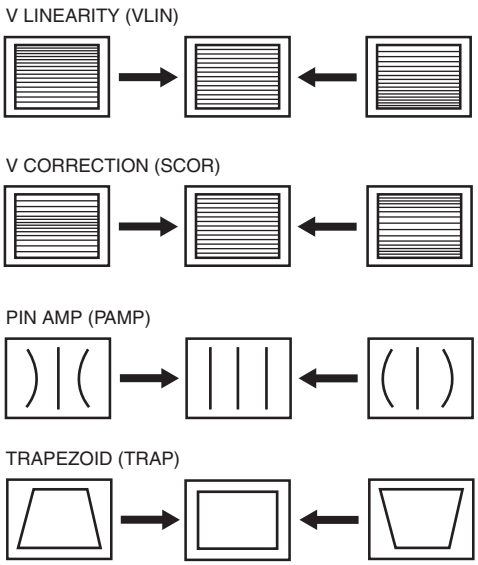
H. Size Adjustment (HSIZ)

1. Input a monoscope signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the HSIZ item.
5. Adjust value of HSIZ by pressing 3 or 6 for the best horizontal size.
6. Press MUTING then ENTER to write into memory.



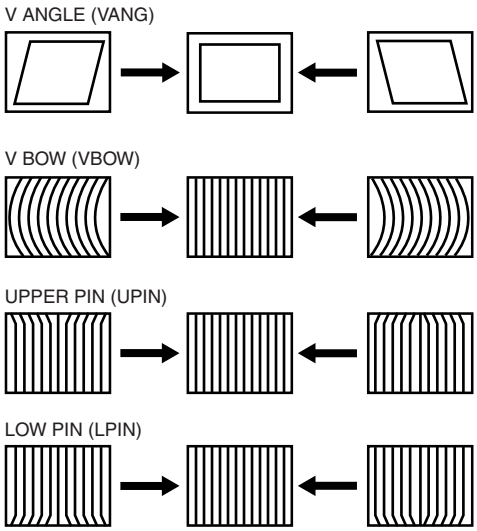
V. Linearity (VLIN), V. Correction (SCOR), PIN Amp (PAMP), and Trapezoid (TRAP) Adjustments

1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the VLIN item.
5. Adjust the value of VLIN by pressing 3 or 6 for the best horizontal size.
6. Repeat steps 4 and 5 for SCOR, PAMP, and TRAP.
7. Press MUTING then ENTER to write into memory.



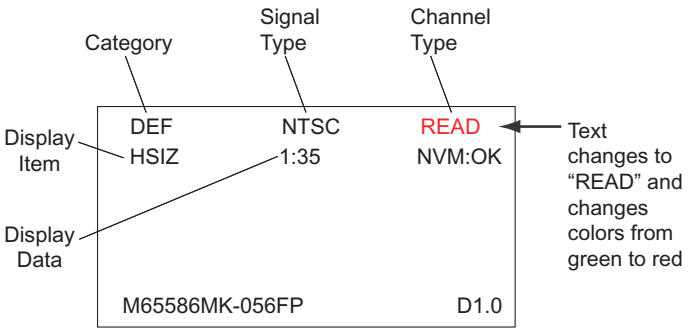
V. Angle (VANG), V. Bow (VBOW), Upper PIN (UPIN) and Low PIN (LPIN) Adjustments

1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the VANG item.
5. Adjust the value of VANG by pressing 3 or 6 for the best picture.
6. Repeat steps 4 and 5 for VBOW, UPIN, and LPIN.
7. Press MUTING then ENTER to write into memory.



Reading Adjustments to Memory

1. After completing all adjustments, 0 then ENTER to read into memory.



4-6. SERVICE DATA LISTS

KD-27FS170 MODELS ONLY

(=) Means not memorized in NVM

Version 1.0

Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VERSION	Fix	0			=	=	=	=
DEF	VAR	1	HSIZ	H SIZE(EW DC)	24	24	24	26
	VAR	2	HPOS	H POSITION	25	25	25	18
	VAR	3	VSIZ	V RAMP SIZE	41	41	41	41
	VAR	4	VPOS	V POSITION(RAMP DC)	30	30	30	30
	VAR	5	VLIN	V LINEARITY	38			
	VAR	6	SCOR	S CORRECTION	51			
	VAR	7	VBOW	BOW	32			
	VAR	8	VANG	ANGLE	19			
	VAR	9	TRAP	EW TRAPESIUM	35			
	VAR	10	PAMP	EW PIN	32			
	VAR	11	UPIN	UPPER PIN	31			
	VAR	12	LPIN	LOWER PIN	30			
	VAR	13	TROT	TROT	109			
	VAR	14	HBLK	H BLK mode select	0			
	VAR	15	RBLK	HBLK rear timing	29	31	31	31
	VAR	16	LBLK	HBLK front timing	59	60	60	60
	VAR	17	VBLK	V BLK width	3			
	FIX	18	HMSK	TOP VEND(when MACROVISION)prevent OFF	0			
	FIX	19	HDW	H PULSE WIDTH(25u 19u)	1			
	FIX	20	AFC	AFC GAIN	0			
	FIX	21	AFC1	AFC1 TIME CONSTANT	3			
	FIX	21	AFC1	AFC1 TIME CONSTANT		3	3	3
	FIX	22	AFCW	AFC1 PULL IN WIDE	1			
	FIX	23	CDMD	V DET WINDOW SW TIMING	1			

KD-27FS170 MODELS ONLY

Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
DEF	FIX	24	HSS	SYNC SLICE LEVEL(H sepa)	0			
	FIX	25	VSS	SYNC SLICE LEVEL(V sepa)	3			
	FIX	26	SLUD	Auto Slice level UP DOWN	0			
	FIX	27	JPSW	Jump SW	0			
	FIX	28	HOSC	H VCO fo offset ADJUST OFFSET	7			
	FIX	29	EHT	EHT	4			
	FIX	30	EHTG	EHT MODE	1			
	FIX	31	SLOH	LPF SYNC H	1			
	FIX	32	SLOV	LPF SYNC V	3			
	FIX	33	SLOP	LPF SYNC	3			
	FIX	34	SLVC	LPF SYNC VCOIN OFF	0			
	FIX	35	SLHC	LPF SYNC HCOIN OFF	0			
	FIX	36	VF50	VFREERUN 50Hz	0			
	FIX	37	VSET	V FREQ SET 50\60 AUTO	0			
16:9	VAR	1	VSIZ	V RAMP SIZE	45			
	VAR	2	VPOS	V POSITION(RAMP DC)	34			
	VAR	3	VLIN	V LINEARITY	35			
	VAR	4	SCOR	S CORRECTION	24			
	VAR	5	TRAP	EW TRAPESIUM	31			
	VAR	6	PAMP	EW PIN	15			
	VAR	7	UPIN	UPPER PIN	31			
	VAR	8	LPIN	LOWER PIN	31			
	VAR	9	ABLG	ABL GAIN	1			
	VAR	10	SCON	SUB CONTRAST LEVEL	8			
	VAR	11	VPW	Jump Pulse Width	1			

KD-27FS170 MODELS ONLY

Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VP1	VAR	1	RDRV	R DRIVE	84			
	VAR	2	GDRV	G DRIVE when Color Temp. is "Cool" and "Neutral"	63	63	62	62
	VAR	3	BDRV	B DRIVE when Color Temp. is "Cool" and "Neutral"	61	61	62	62
	VAR	4	RCUT	Hardware AKB(R) CMP DATA	100			
	VAR	5	GCUT	Hardware AKB(G) CMP DATA when Color Temp. is "Cool" and "Neutral"	52	52		
	VAR	5	GCUT	Hardware AKB(G) CMP DATA when Color Temp. is "Cool" and "Neutral"			53	53
	VAR	6	BCUT	Hardware AKB(B) CMP DATA when Color Temp. is "Cool" and "Neutral"	57	57		
	VAR	6	BCUT	Hardware AKB(B) CMP DATA when Color Temp. is "Cool" and "Neutral"			57	57
	VAR	7	SCON	SUB CONTRAST LEVEL	12			
	VAR	8	SHUE	SUB TINT(HUE)	11	7	8	7
	VAR	9	SCOL	SUB COLOR LEVEL for Not NR	4	5	25	4
	VAR	10	SBRT	SUB BRIGHTNESS	11	11	13	15
	VAR	11	RON	R OUTPUT ON (0:R Output OFF 1:R Output ON)	1			
	VAR	12	GON	G OUTPUT ON (0:G Output OFF 1:G Output ON)	1			
	VAR	13	BON	B OUTPUT ON (0:B Output OFF 1:B Output ON)	1			
	FIX	14	BLLV	BLUE STRETCH(00:no <-> 11:deep) only Color Temp "Cool"	1			
	FIX	15	BLLM	BLUE STRETCH Y LEREL LIMIT LEVEL	0			
	FIX	16	MTRX	MATRIX RATIO SELECT	1			
	FIX	17	AXIS	R-Y PHASE OFFSET	52			
	FIX	18	GYG	G-Y Gain	0			
	FIX	19	GYP	G-Y PHASE	0			
	FIX	20	SSHO	SUB SHARPNESS GAIN(OVER) RF VIDEO	16	16	2	16
	FIX	21	SSHP	SUB SHARPNESS GAIN(PRE) RF VIDEO	21	21	13	21
	FIX	22	SHPF	SHRPNESS fo(00:2 CLK <-> 11:5 CLK)	0			
	FIX	22	SHPF	SHRPNESS fo(00:2 CLK <-> 11:5 CLK)			0	1
	FIX	23	SHCL	SHARPNESS CORING LEVEL	1			
	FIX	24	SHMX	SHARPNESS LIMITTER LEVEL	15			

KD-27FS170 MODELS ONLY

Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VP1	FIX	25	AKBD	AKB Self Diagnostic Counter(@1sec)	5			
	FIX	26	AKBS	AKB Switch (0 : AKB OFF 1 : H W AKB ON)	1			
	FIX	27	REFP	AKB REFPLS timing ("0"Fix when 16:9On)	0			
	FIX	28	YNRC	YNR LIMITER LEVEL	15			
	FIX	29	VYNR	VYNR LIMITER LEVEL	0			
	FIX	30	BKON	BLACK STRETCH ON	1			
	FIX	31	BKRC	BLACK STRETCH DETECTOR TIME CONSTANT1	252			
	FIX	32	BKDP	BLACK STRETCH START POINT	3			
	FIX	33	BKSP	BLACK STRETCH POINT	2			
	VAR	34	UOFS	U IN OFFSET	32		78	78
	VAR	35	VOFS	V IN OFFSET	32		74	74
	FIX	36	TAKE	BPF F0 UP	0			
	FIX	36	TAKE	BPF F0 UP			0	0
	FIX	37	TAKW	BPF F0 UP WIDTH	0			
	FIX	37	TAKW	BPF F0 UP WIDTH			0	0

KD-27FS170 MODELS ONLY

Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VP2	FIX	1	VMOF	VM LEVEL at "Off" Setting	2			
	FIX	2	VMLO	VM LEVEL at "Low" Setting	5			
	FIX	3	VMHI	VM LEVEL at "High" Setting	11			
	FIX	4	VMDL	VM DELAY	11	11	7	11
	FIX	5	VMPL	VM PORALITY	1			
	FIX	6	VMWD	VM WIDTH	0			
	FIX	7	VMCL	VM CORING LEVEL	0			
	FIX	8	VMMX	VM LIMITER LEVEL	15			
	FIX	9	CKLV	COLOR KILLER VTH	1			
	FIX	10	CKON	FORCE KILLER	0			
	FIX	11	VACL	V APERTURE CORING LEVEL	0			
	FIX	12	VAGA	V APERTURE GAIN LEVEL	7			
	FIX	13	VAMX	V APERTURE LIMITER LEVEL	15			
	FIX	14	GAMM	GAMMA(00:no <-->11:deep)	2			
	FIX	15	YDLY	Y DELAY TIME	3			
	FIX	16	CDLY	C DELAY	2			
	FIX	17	BGPP	BGP(for C DECODER)TIMING	11			
	FIX	18	NRBP	NOISE DET BPF	0			
	FIX	19	NRLS	NOISE DET POS	0			
	FIX	20	NRDT	NOISE DET CORING LEVEL	0			
	FIX	21	GDOF	G DRIVE OFFSET only Color Temp. "Warm"	18			
	FIX	22	BDOF	B DRIVE OFFSET only Color Temp. "Warm"	31			
	FIX	23	GCOF	GCUT CMP DATA OFFSET only Color Temp. "Warm"	2			
	FIX	24	BCOF	BCUT CMP DATA OFFSET only Color Temp. "Warm"	4			

KD-27FS170 MODELS ONLY

Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VP2	FIX	25	GDOC	G DRIVE OFFSET only Color Temp. "Cool"	0			
	FIX	26	BDOC	B DRIVE OFFSET only Color Temp. "Cool"	0			
	FIX	27	GCOC	GCUT CMP DATA OFFSET only Color Temp. "Cool"	0			
	FIX	28	BCOC	BCUT CMP DATA OFFSET only Color Temp. "Cool"	0			
	FIX	29	DCTV	DCTRANSFER VTH	3			
	FIX	30	DCTG	DCTRANSFER GAIN	12			
Y C	FIX	1	ALFA	ADAPTIVE DET SENSITIVITY	1			
	FIX	2	YCMD	YC SEPA FORCE SELECT(00:ADAPTIVE 01:H 10:V 11:HV)	0			
NR	FIX	1	SCOL	SUB COLOR LEVEL for NR	7			
	FIX	2	SHCL	SHARPNESS NOISE CORING LEVEL for NR	15			
	FIX	3	SHMX	SHARPNESS LIMITTER LEVEL for NR	7			
	FIX	4	YNRC	YNR LIMITER LEVEL for NR	7			
	FIX	5	VMHI	VM LEVEL at "High" Setting for NR	7			
	FIX	6	VMCL	VM CORING LEVEL for NR	0			
	FIX	7	VMMX	VM LIMITER LEVEL for NR	7			
	FIX	8	VAGA	V APERTURE GAIN LEVEL for NR	0			
	FIX	9	GAMM	GAMMA(00:no <-->11:deep) for NR	0			
	FIX	10	YNRS	YNR ON for NR	1			
	FIX	11	WSTH	WEAK_SIGNAL VTH for NR	7			
	FIX	12	WSVA	WEAK SIGNAL VIDEO ATT for NR	0			
	FIX	13	WSCA	WEAK SIGNAL CHROMA ATT for NR	5			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
PALLET VIVID	FIX	1	VPIC	Picture(VIVID)	63			
	FIX	2	VBRI	Brightness(VIVID)	32			
	FIX	3	VCOL	Color(VIVID)	30			
	FIX	4	VHUE	Hue(VIVID)	31			
	FIX	5	VSHA	Sharpness(VIVID)	35			
	FIX	6	VVM	VM(VIVID)	2			
	FIX	7	VTRI	Color Temp(VIVID)	0			
	FIX	8	VAPA	Aperture G(VIVID)	7			
	FIX	9	VGMA	Gamma(VIVID)	2			
	FIX	10	VDCT	DCT LV(VIVID)	12			
	FIX	11	BKDP	BLACK STRETCH DEPTH(VIVID)	3			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(VIVID)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(VIVID)	2			
	FIX	14	CONO	CONTRAST OFFSET for RF(VIVID)	0			
	FIX	15	COOF	Contrast Offset	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
PALLET STD	FIX	1	VPIC	Picture(STD)	58			
	FIX	2	VBRI	Brightness(STD)	31			
	FIX	3	VCOL	Color(STD)	31			
	FIX	4	VHUE	Hue(STD)	31			
	FIX	5	VSHA	Sharpness(STD)	37			
	FIX	6	VVM	VM(STD)	1			
	FIX	7	VTRI	Color Temp(STD)	1			
	FIX	8	VAPA	Aperture G(STD)	4			
	FIX	9	VGMA	Gamma(STD)	1			
	FIX	10	VDCT	DCT LV(STD)	9			
	FIX	11	BKDP	BLACK STRETCH DEPTH(STD)	2			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(STD)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(STD)	1			
	FIX	14	CONO	CONTRAST OFFSET for RF(STD)	0			
	FIX	15	COOF	Contrast Offset	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
PALLET MOVIE	FIX	1	VPIC	Picture(MOVIE)	45			
	FIX	2	VBRI	Brightness(MOVIE)	28			
	FIX	3	VCOL	Color(MOVIE)	31			
	FIX	4	VHUE	Hue(MOVIE)	31			
	FIX	5	VSHA	Sharpness(MOVIE)	34			
	FIX	6	VVM	VM(MOVIE)	1			
	FIX	7	VTRI	Color Temp(MOVIE)	2			
	FIX	8	VAPA	Aperture G(MOVIE)	3			
	FIX	9	VGMA	Gamma(MOVIE)	1			
	FIX	10	VDCT	DCT LV(MOVIE)	9			
	FIX	11	BKDP	BLACK STRETCH DEPTH(MOVIE)	1			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(MOVIE)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(MOVIE)	1			
	FIX	14	CONO	CONTRAST OFFSET for RF(MOVIE)	0			
	FIX	15	COOF	Contrast Offset	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
PALLET PRO	FIX	1	VPIC	Picture(PRO)	39			
	FIX	2	VBRI	Brightness(PRO)	31			
	FIX	3	VCOL	Color(PRO)	31			
	FIX	4	VHUE	Hue(PRO)	31			
	FIX	5	VSHA	Sharpness(PRO)	31			
	FIX	6	VVM	VM(PRO)	0			
	FIX	7	VTRI	Color Temp(PRO)	1			
	FIX	8	VAPA	Aperture G(PRO)	0			
	FIX	9	VGMA	Gamma(PRO)	0			
	FIX	10	VDCT	DCT LV(PRO)	2			
	FIX	11	BKDP	BLACK STRETCH DEPTH(PRO)	1			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(PRO)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(PRO)	0			
	FIX	14	CONO	CONTRAST OFFSET for RF(PRO)	0			
	FIX	15	COOF	Contrast Offset	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	1	YNRS	YNR ON	0			
	FIX	2	CLPS	CLAMP CONTROL SW 0:CLAMP OFF 1:CLAMP AUTO1 mode (usual procedure) 2:CLAMP ON mode 3: CLAMP AUTO2 mode (New procedure)	1			
	FIX	3	VMG2	MODULATOR FEEDBACK GAIN CONTROL	1			
	FIX	4	CLPT	CLAMP AUTO ON KEEP TIMER COUNT (@100ms)	15			
	FIX	5	AASL	C DECODER TIME CONSTANT(32,16,8,1H)	2			
	FIX	6	BASL	ACC TIME CONSTANT	0			
	FIX	7	ACTH	ROM HYS	95			
	FIX	8	AVAV	AVE SEL AV	3			
	FIX	9	B2TH	B2COMP	0			
	FIX	10	CORL	R CUTOFF lower	0			
	FIX	11	CORH	R CUTOFF upper	1			
	FIX	12	COGL	G CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0			
	FIX	13	COGH	G CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1			
	FIX	14	COBL	B CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0			
	FIX	15	COBH	B CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1			
	FIX	16	ALSP	ACL SPEED	0			
	FIX	17	ALAS	ACL ATACK SPEED	146			
	FIX	18	ABLG	ABL GAIN	4			
	FIX	19	AKBP	AKB PULSE HEIGHT	10			
	FIX	20	AALG	ANALOG ACL GAIN CONTROL	0			
	FIX	21	AALS	ANALOG ACL ON/OFF CONTROL	1			
	FIX	22	UVDT	UVIN DITHER TEST	12			
	FIX	23	YDT	Y DITHER LEVEL	0			
	FIX	24	HFFR	AFC1 FORCE FREERUN	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	25	HFUP	H FREERUN FREQUENCY UP(700Hz)	0			
	FIX	26	JSWW	Jump Pulse Width	0			
	FIX	27	XF0A	VCXO FREERUN ADJUST	0			
	FIX	28	BGST	BGP(for PLL) TIMING	16	16	6	16
	FIX	29	XPHA	VCXO PHASE ADJUST	8			
	FIX	30	HRMP	AFC2 TIME CONSTANT	3			
	FIX	31	RPLU	REF PLL TIME CONSTANT	3			
	FIX	32	RPLB	REF PLL TIME CONSTANT	1			
	FIX	33	XF0B	VCXO Fo ADJUST	0			
	FIX	34	RPLS	REF VCO FB LOOP SELECT	0			
	FIX	35	SSM	SyncSepaMasking CONTROL	0			
	FIX	36	VSAG	V-SAG prevent ON	0			
	FIX	37	AFC2	AFC2 GAIN CONTROL	0			
	FIX	38	XPLU	ACP TIME CONSTANT	1			
	FIX	39	AAPC	APC TIME CONSTANT BW SLOW	0			
	FIX	40	CDM2	V_LOGIC SW	1			
	FIX	41	MHDL	BGP SEL	1			
	FIX	42	HRPP	FRAMP RRAMP H OUT CONTROL RANGE	2			
	FIX	43	DSCK	DS DAC CLK SW for only Not YUV (YUV:"1"Fix)	0	0	0	0
	FIX	44	VPW	V Pulse Wide	1			
	FIX	45	DTH	DITHER THRESHOLD LEVEL CONTROL at IIC AUTOD=ON	1			
	FIX	46	YOFF	Y OUTPUT MUTE	0			
	FIX	47	VSSW	SYNC SLICE LEVEL(V) Wide Window	0			
	FIX	48	AF2S	AFC2 timing SW	0			
	FIX	49	VSL2	Digital V_SYNC_LPF(fall)	1			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	50	VSL1	Digital V_SYNC_LPF(rise)	0			
	FIX	51	VSHE	V-SHRINK MODE for AV-NoSync	0			
	FIX	52	DSCS	CLOCK DIV SEL	0	0	1	0
	FIX	53	14HI	4fsc(Skew)CLK POLARITY	1			
	FIX	54	14HD	4fscCLK(Skew)CLK DELAY ADJUST	0			
	FIX	55	DSI	8fscCLK POLARITY	1			
	FIX	56	DSD	8fscCLK DELAY ADJUST	0			
	FIX	57	ADCD	ADC CLK DELAY ADJUST	1			
	FIX	58	WSTH	WEAK_SIGNAL VTH	0			
	FIX	59	WSVA	WEAK SIGNAL VIDEO ATT	0			
	FIX	60	WSCA	WEAK SIGNAL CHROMA ATT	0			
	FIX	61	VREF	AD REFERNCE SELECT(VZ)	0			
	FIX	62	DCCK	AD REFERNCE SELECT(VZ)	12	12	0	12
	FIX	63	OSDC	OSD COMP	0			
	FIX	64	HLM1	H/W AKB LIM1	4			
	FIX	65	HLM2	H/W AKB LIM2	12			
	FIX	66	HLM3	H/W AKB LIM3	21			
	FIX	67	HAD1	H/W AKB SPEED1	2			
	FIX	68	HAD2	H/W AKB SPEED2	6			
	FIX	69	HAKE	H/W AKB MANUAL (MCU)/HARD	1			
	FIX	70	HASP	H/W AKB SPEED	3			
	FIX	71	HERL	H/W AKB ERROR DET THRESH	10			
	FIX	72	HLMC	H/W AKB ERROR DET TIME	15			
	FIX	73	HPWL	H/W AKB POWER ON TRESH	4			
	FIX	74	HPWC	H/W AKB POWER ON TIME	2			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	75	HFMT	POWER ON H/W AKB2 HOLD TIMER(@100msec) [0 : No Hold]	20			
	FIX	76	SPMT	AKB POWER ON MUTE EXIT TIMER(@100msec)	120			
	FIX	77	Y16M	YUV 16M	1			
	FIX	78	PCLP	Pedestal Clamp	0			
MICROPROCESSOR	FIX	1	DISP	OSD horizontal position	88			
	FIX	2	MEDP	Menu display postion	110			
	FIX	3	HRLW	Low limit of H-pulse counting window (RF)	16			
	FIX	4	HRHG	High limit of H-pulse counting wondow (RF)	64			
	FIX	5	HSDT	H-pulse Detection(S-Video)	8			
	FIX	6	STPI	Gradual CONTRAST Increase Starting level	40			
	FIX	7	RAPI	Gradual CONTRAST Increase Vsync counter	10			
	FIX	8	ABLT	ABL protection counter	3			
	FIX	9	OSLR	R OSD level	27			
	FIX	10	OSLG	G OSD level	27			
	FIX	11	OSLB	B OSD Level	27			
	FIX	12	DIOF	Digital Input Offset	60			
	FIX	13	PDL1	Turn on the Power Relay	2			
	FIX	14	HLDD	Counter for Hold Down detection for OCP SelfDiagnosis	0			
FEATURE	VAR	1	ID0	Language related	73			
	VAR	2	ID1	Video ralated	7			
	VAR	3	ID2	Audio related	3			
	VAR	4	ID3	Miscellaneous	32			
	VAR	5	ID4	Miscellaneous	0			
	VAR	6	ID5	Miscellaneous	0			
	VAR	7	ID6	Miscellaneous	0			
	VAR	8	ID7	Miscellaneous	33			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
QM	FIX	1	INFO	Service Information Display (For Engineering Use)	0			
	FIX	2	GFXX	Graphics Origin X Offset	114			
	FIX	3	CFXY	Graphics Origin Y Offset	36			
	FIX	4	CGBRT	Closed Caption Brigthness	80			
	FIX	5	CGCON	Closed Caption Contrast	50			
	FIX	6	MBRT	MENU Brightness	80			
	FIX	7	MCON	MENU Contrast	80			
	FIX	8	UCNT1	User Default Picture Contrast (YCbCr side output)	128			
	FIX	9	UBRT1	User Dafault Picture Brighteness (YCbCr side output)	124			
	FIX	10	UCOL1	User Default Picture Color (YCbCr side output)	70			
	FIX	11	UTNT1	User Default Picture Tint (YCbCr side output)	64			
	FIX	12	UCLO2	User Default Picture Color (Y/C side output)	0			
	FIX	13	UTNT2	User Default Pincture Tint (Y/C side output)	0			
	FIX	14	PFXX	Picture and Graphics Origin X Offset	117			
	FIX	15	PFXY	Picture and Graphics Origin Y Offset	18			
	FIX	16	CRADJ	Adjust Croma control	0			
	FIX	17	CRLT	Croma Adjust Top Limit (use at CRADJ=1)	406			
	FIX	18	CRLB	Croma Adjust Bottom Limit (use at CRADJ=1)	90			
	FIX	19	CRLF	Croma Adjust Fix value (use at CRADJ=2)	256			
	FIX	20	SNRT0	Video Mute Timing by SNR(db) value in 8VSB	14			
	FIX	21	SNRT1	Video Mute Timing by SNR(db) value in 64QAM (QAM only)	14			
	FIX	22	SNRT2	Video Mute Timing by SNR(db) value in 256QAM (QAM only)	14			
	FIX	23	ERRT	Video Mute Timing by Error value	3			
	FIX	24	FONT	Display front	0			
	FIX	25	H-BLK	Half blank control	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
QT	FIX	1	CVSB	Service Information Display (For Engineering Use)	0			
	FIX	2	WSC0	Graphics Origin X Offset	0			
	FIX	3	WSC1	Graphics Origin Y Offset	0			
	FIX	4	WSC2	Closed Caption Brigthness	0			
	FIX	5	WSC3	Closed Caption Contrast	0			
	FIX	6	WSC4	MENU Brightness	0			
	FIX	7	WSC5	MENU Contrast	0			
	FIX	8	WSC6	User Default Picture Contrast (YCbCr side output)	0			
	FIX	9	WSC7	User Dafault Picture Brighteness (YCbCr side output)	0			
	FIX	10	WSC8	User Default Picture Color (YCbCr side output)	0			
	FIX	11	WSC9	User Default Picture Tint (YCbCr side output)	0			
	FIX	12	CADTV	User Default Picture Color (Y/C side output)	0			

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(=) Means not memorized in NVM

Version 1.0

Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VERSION	Fix	0			=	=	=	=
DEF	VAR	1	HSIZ	H SIZE(EW DC)	33	33	34	33
	VAR	2	HPOS	H POSITION	22	24	23	16
	VAR	3	VSIZ	V RAMP SIZE	28	28	30	28
	VAR	4	VPOS	V POSITION(RAMP DC)	33	33	34	35
	VAR	5	VLIN	V LINEARITY	38			
	VAR	6	SCOR	S CORRECTION	51			
	VAR	7	VBOW	BOW	30			
	VAR	8	VANG	ANGLE	29			
	VAR	9	TRAP	EW TRAPESIUM	34			
	VAR	10	PAMP	EW PIN	30			
	VAR	11	UPIN	UPPER PIN	28			
	VAR	12	LPIN	LOWER PIN	28			
	VAR	13	TROT	TROT	128			
	VAR	14	HBLK	H BLK mode select	0			
	VAR	15	RBLK	HBLK rear timing	28	28	28	28
	VAR	16	LBLK	HBLK front timing	58	58	58	58
	VAR	17	VBLK	V BLK width	3			
	FIX	18	HMSK	TOP VEND(when MACROVISION)prevent OFF	0			
	FIX	19	HDW	H PULSE WIDTH(25u 19u)	1			
	FIX	20	AFC	AFC GAIN	0			
	FIX	21	AFC1	AFC1 TIME CONSTANT	3			
	FIX	21	AFC1	AFC1 TIME CONSTANT		3	3	3
	FIX	22	AFCW	AFC1 PULL IN WIDE	1			
	FIX	23	CDMD	V DET WINDOW SW TIMING	1			
	FIX	24	HSS	SYNC SLICE LEVEL(H sepa)	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
DEF	FIX	25	VSS	SYNC SLICE LEVEL(V sepa)	3			
	FIX	26	SLUD	Auto Slice level UP DOWN	0			
	FIX	27	JPSW	Jump SW	0			
	FIX	28	HOSC	H VCO fo offset ADJUST OFFSET	3			
	FIX	29	EHT	EHT	4			
	FIX	30	EHTG	EHT MODE	1			
	FIX	31	SLOH	LPF SYNC H	1			
	FIX	32	SLOV	LPF SYNC V	3			
	FIX	33	SLOP	LPF SYNC	3			
	FIX	34	SLVC	LPF SYNC VCOIN OFF	0			
	FIX	35	SLHC	LPF SYNC HCOIN OFF	0			
	FIX	36	VF50	VFREERUN 50Hz	0			
	FIX	37	VSET	V FREQ SET 50\60 AUTO	0			
16:9	VAR	1	VSIZ	V RAMP SIZE	30			
	VAR	2	VPOS	V POSITION(RAMP DC)	36			
	VAR	3	VLIN	V LINEARITY	35			
	VAR	4	SCOR	S CORRECTION	24			
	VAR	5	TRAP	EW TRAPESIUM	30			
	VAR	6	PAMP	EW PIN	14			
	VAR	7	UPIN	UPPER PIN	30			
	VAR	8	LPIN	LOWER PIN	31			
	VAR	9	ABLG	ABL GAIN	1			
	VAR	10	SCON	SUB CONTRAST LEVEL	10			
	VAR	11	VPW	Jump Pulse Width	1			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VP1	VAR	1	RDRV	R DRIVE	84			
	VAR	2	GDRV	G DRIVE when Color Temp. is "Cool" and "Neutral"	67	67	71	67
	VAR	3	BDRV	B DRIVE when Color Temp. is "Cool" and "Neutral"	49	49	52	49
	VAR	4	RCUT	Hardware AKB(R) CMP DATA	100			
	VAR	5	GCUT	Hardware AKB(G) CMP DATA when Color Temp. is "Cool" and "Neutral"	62	62		
	VAR	5	GCUT	Hardware AKB(G) CMP DATA when Color Temp. is "Cool" and "Neutral"			61	62
	VAR	6	BCUT	Hardware AKB(B) CMP DATA when Color Temp. is "Cool" and "Neutral"	65	65		
	VAR	6	BCUT	Hardware AKB(B) CMP DATA when Color Temp. is "Cool" and "Neutral"			68	65
	VAR	7	SCON	SUB CONTRAST LEVEL	16			
	VAR	8	SHUE	SUB TINT(HUE)	14	10	8	10
	VAR	9	SCOL	SUB COLOR LEVEL for Not NR	4	5	25	4
	VAR	10	SBRT	SUB BRIGHTNESS	12	12	13	15
	VAR	11	RON	R OUTPUT ON (0:R Output OFF 1:R Output ON)	1			
	VAR	12	GON	G OUTPUT ON (0:G Output OFF 1:G Output ON)	1			
	VAR	13	BON	B OUTPUT ON (0:B Output OFF 1:B Output ON)	1			
	FIX	14	BLLV	BLUE STRETCH(00:no <-> 11:deep) only Color Temp "Cool"	1			
	FIX	15	BLLM	BLUE STRETCH Y LEREL LIMIT LEVEL	0			
	FIX	16	MTRX	MATRIX RATIO SELECT	1			
	FIX	17	AXIS	R-Y PHASE OFFSET	52			
	FIX	18	GYG	G-Y Gain	0			
	FIX	19	GYP	G-Y PHASE	0			
	FIX	20	SSHO	SUB SHARPNESS GAIN(OVER) RF VIDEO	12	14	2	16
	FIX	21	SSHP	SUB SHARPNESS GAIN(PRE) RF VIDEO	17	19	13	21
	FIX	22	SHPF	SHRPNESS fo(00:2 CLK <-> 11:5 CLK)	0			
	FIX	22	SHPF	SHRPNESS fo(00:2 CLK <-> 11:5 CLK)		1	0	1
	FIX	23	SHCL	SHARPNESS CORING LEVEL	1			
	FIX	24	SHMX	SHARPNESS LIMITTER LEVEL	15			
	FIX	25	AKBD	AKB Self Diagnostic Counter(@1sec)	5			
	FIX	26	AKBS	AKB Switch (0 : AKB OFF 1 : H W AKB ON)	1			
	FIX	27	REFP	AKB REFPLS timing ("0"Fix when 16:9On)	0			
	FIX	28	YNRC	YNR LIMITER LEVEL	15			
	FIX	29	VYNR	VYNR LIMITER LEVEL	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VP1	FIX	30	BKON	BLACK STRETCH ON	1			
	FIX	31	BKRC	BLACK STRETCH DETECTOR TIME CONSTANT1	252			
	FIX	32	BKDP	BLACK STRETCH START POINT	3			
	FIX	33	BKSP	BLACK STRETCH POINT	2			
	VAR	34	UOFS	U IN OFFSET	32		100	78
	VAR	35	VOFS	V IN OFFSET	32		89	74
	FIX	36	TAKE	BPF F0 UP	0			
	FIX	36	TAKE	BPF F0 UP			0	0
	FIX	37	TAKW	BPF F0 UP WIDTH	0			
	FIX	37	TAKW	BPF F0 UP WIDTH			0	0
VP2	FIX	1	VMOF	VM LEVEL at "Off" Setting	2			
	FIX	2	VMLO	VM LEVEL at "Low" Setting	5			
	FIX	3	VMHI	VM LEVEL at "High" Setting	11			
	FIX	4	VMDL	VM DELAY	11	11	7	11
	FIX	5	VMPL	VM PORALITY	1			
	FIX	6	VMWD	VM WIDTH	0			
	FIX	7	VMCL	VM CORING LEVEL	0			
	FIX	8	VMMX	VM LIMITER LEVEL	15			
	FIX	9	CKLV	COLOR KILLER VTH	1			
	FIX	10	CKON	FORCE KILLER	0			
	FIX	11	VACL	V APERTURE CORING LEVEL	0			
	FIX	12	VAGA	V APERTURE GAIN LEVEL	7			
	FIX	13	VAMX	V APERTURE LIMITER LEVEL	15			
	FIX	14	GAMM	GAMMA(00:no <-->11:deep)	2			
	FIX	15	YDLY	Y DELAY TIME	3			
	FIX	16	CDLY	C DELAY	2			
	FIX	17	BGPP	BGP(for C DECODER)TIMING	11			
	FIX	18	NRBP	NOISE DET BPF	0			
	FIX	19	NRLS	NOISE DET POS	0			
	FIX	20	NRDT	NOISE DET CORING LEVEL	0			
	FIX	21	GDOF	G DRIVE OFFSET only Color Temp. "Warm"	18			
	FIX	22	BDOF	B DRIVE OFFSET only Color Temp. "Warm"	31			
	FIX	23	GCOF	GCUT CMP DATA OFFSET only Color Temp. "Warm"	2			
	FIX	24	BCOF	BCUT CMP DATA OFFSET only Color Temp. "Warm"	4			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VP2	FIX	25	GDOC	G DRIVE OFFSET only Color Temp. "Cool"	0			
	FIX	26	BDOC	B DRIVE OFFSET only Color Temp. "Cool"	0			
	FIX	27	GCOC	GCUT CMP DATA OFFSET only Color Temp. "Cool"	0			
	FIX	28	BCOC	BCUT CMP DATA OFFSET only Color Temp. "Cool"	0			
	FIX	29	DCTV	DCTRANSFER VTH	3			
	FIX	30	DCTG	DCTRANSFER GAIN	12			
Y C	FIX	1	ALFA	ADAPTIVE DET SENSITIVITY	1			
	FIX	2	YCMD	YC SEPA FORCE SELECT(00:ADAPTIVE 01:H 10:V 11:HV)	0			
NR	FIX	1	SCOL	SUB COLOR LEVEL for NR	7			
	FIX	2	SHCL	SHARPNESS NOISE CORING LEVEL for NR	15			
	FIX	3	SHMX	SHARPNESS LIMITTER LEVEL for NR	7			
	FIX	4	YNRC	YNR LIMITER LEVEL for NR	7			
	FIX	5	VMHI	VM LEVEL at "High" Setting for NR	7			
	FIX	6	VMCL	VM CORING LEVEL for NR	0			
	FIX	7	VMMX	VM LIMITER LEVEL for NR	7			
	FIX	8	VAGA	V APERTURE GAIN LEVEL for NR	0			
	FIX	9	GAMM	GAMMA(00:no <-->11:deep) for NR	0			
	FIX	10	YNRS	YNR ON for NR	1			
	FIX	11	WSTH	WEAK_SIGNAL VTH for NR	0			
	FIX	12	WSVA	WEAK SIGNAL VIDEO ATT for NR	0			
	FIX	13	WSCA	WEAK SIGNAL CHROMA ATT for NR	5			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
PALLET VIVID	FIX	1	VPIC	Picture(VIVID)	63			
	FIX	2	VBRI	Brightness(VIVID)	32			
	FIX	3	VCOL	Color(VIVID)	30			
	FIX	4	VHUE	Hue(VIVID)	31			
	FIX	5	VSHA	Sharpness(VIVID)	35			
	FIX	6	VVM	VM(VIVID)	2			
	FIX	7	VTRI	Color Temp(VIVID)	0			
	FIX	8	VAPA	Aperture G(VIVID)	7			
	FIX	9	VGMA	Gamma(VIVID)	2			
	FIX	10	VDCT	DCT LV(VIVID)	12			
	FIX	11	BKDP	BLACK STRETCH DEPTH(VIVID)	3			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(VIVID)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(VIVID)	2			
	FIX	14	CONO	CONTRAST OFFSET for RF(VIVID)	0			
	FIX	15	COOF	Contrast Offset	0			
PALLET STD	FIX	1	VPIC	Picture(STD)	58			
	FIX	2	VBRI	Brightness(STD)	31			
	FIX	3	VCOL	Color(STD)	31			
	FIX	4	VHUE	Hue(STD)	31			
	FIX	5	VSHA	Sharpness(STD)	37			
	FIX	6	VVM	VM(STD)	1			
	FIX	7	VTRI	Color Temp(STD)	1			
	FIX	8	VAPA	Aperture G(STD)	4			
	FIX	9	VGMA	Gamma(STD)	1			
	FIX	10	VDCT	DCT LV(STD)	9			
	FIX	11	BKDP	BLACK STRETCH DEPTH(STD)	2			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(STD)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(STD)	1			
	FIX	14	CONO	CONTRAST OFFSET for RF(STD)	0			
	FIX	15	COOF	Contrast Offset	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
PALLET MOVIE	FIX	1	VPIC	Picture(MOVIE)	45			
	FIX	2	VBRI	Brightness(MOVIE)	28			
	FIX	3	VCOL	Color(MOVIE)	31			
	FIX	4	VHUE	Hue(MOVIE)	31			
	FIX	5	VSHA	Sharpness(MOVIE)	34			
	FIX	6	VVM	VM(MOVIE)	1			
	FIX	7	VTRI	Color Temp(MOVIE)	2			
	FIX	8	VAPA	Aperture G(MOVIE)	3			
	FIX	9	VGMA	Gamma(MOVIE)	1			
	FIX	10	VDCT	DCT LV(MOVIE)	9			
	FIX	11	BKDP	BLACK STRETCH DEPTH(MOVIE)	1			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(MOVIE)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(MOVIE)	1			
	FIX	14	CONO	CONTRAST OFFSET for RF(MOVIE)	0			
	FIX	15	COOF	Contrast Offset	0			
PALLET PRO	FIX	1	VPIC	Picture(PRO)	39			
	FIX	2	VBRI	Brightness(PRO)	31			
	FIX	3	VCOL	Color(PRO)	31			
	FIX	4	VHUE	Hue(PRO)	31			
	FIX	5	VSHA	Sharpness(PRO)	31			
	FIX	6	VVM	VM(PRO)	0			
	FIX	7	VTRI	Color Temp(PRO)	1			
	FIX	8	VAPA	Aperture G(PRO)	0			
	FIX	9	VGMA	Gamma(PRO)	0			
	FIX	10	VDCT	DCT LV(PRO)	2			
	FIX	11	BKDP	BLACK STRETCH DEPTH(PRO)	1			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(PRO)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(PRO)	0			
	FIX	14	CONO	CONTRAST OFFSET for RF(PRO)	0			
	FIX	15	COOF	Contrast Offset	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	1	YNRS	YNR ON	0			
	FIX	2	CLPS	CLAMP CONTROL SW 0:CLAMP OFF 1:CLAMP AUTO1 mode (usual procedure) 2:CLAMP ON mode 3: CLAMP AUTO2 mode (New procedure)	1			
	FIX	3	VMG2	MODULATOR FEEDBACK GAIN CONTROL	1			
	FIX	4	CLPT	CLAMP AUTO ON KEEP TIMER COUNT (@100ms)	15			
	FIX	5	AASL	C DECODER TIME CONSTANT(32,16,8,1H)	2			
	FIX	6	BASL	ACC TIME CONSTANT	0			
	FIX	7	ACTH	ROM HYS	95			
	FIX	8	AVAV	AVE SEL AV	3			
	FIX	9	B2TH	B2COMP	0			
	FIX	10	CORL	R CUTOFF lower	0			
	FIX	11	CORH	R CUTOFF upper	1			
	FIX	12	COGL	G CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0			
	FIX	13	COGH	G CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1			
	FIX	14	COBL	B CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0			
	FIX	15	COBH	B CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1			
	FIX	16	ALSP	ACL SPEED	0			
	FIX	17	ALAS	ACL ATACK SPEED	146			
	FIX	18	ABLG	ABL GAIN	4			
	FIX	19	AKBP	AKB PULSE HEIGHT	10			
	FIX	20	AALG	ANALOG ACL GAIN CONTROL	0			
	FIX	21	AALS	ANALOG ACL ON/OFF CONTROL	1			
	FIX	22	UVDT	UVIN DITHER TEST	12			
	FIX	23	YDT	Y DITHER LEVEL	1			
	FIX	24	HFFR	AFC1 FORCE FREERUN	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	25	HFUP	H FREERUN FREQUENCY UP(700Hz)	0			
	FIX	26	JSWW	Jump Pulse Width	0			
	FIX	27	XF0A	VCXO FREERUN ADJUST	0			
	FIX	28	BGST	BGP(for PLL) TIMING	16	16	6	16
	FIX	29	XPHA	VCXO PHASE ADJUST	8			
	FIX	30	HRMP	AFC2 TIME CONSTANT	3			
	FIX	31	RPLU	REF PLL TIME CONSTANT	3			
	FIX	32	RPLB	REF PLL TIME CONSTANT	1			
	FIX	33	XF0B	VCXO Fo ADJUST	0			
	FIX	34	RPLS	REF VCO FB LOOP SELECT	0			
	FIX	35	SSM	SyncSepaMasking CONTROL	0			
	FIX	36	VSAG	V-SAG prevent ON	0			
	FIX	37	AFC2	AFC2 GAIN CONTROL	0			
	FIX	38	XPLU	ACP TIME CONSTANT	1			
	FIX	39	AAPC	APC TIME CONSTANT BW SLOW	0			
	FIX	40	CDM2	V_LOGIC SW	1			
	FIX	41	MHDL	BGP SEL	1			
	FIX	42	HRPP	FRAMP RRAMP H OUT CONTROL RANGE	2			
	FIX	43	DSCK	DS DAC CLK SW for only Not YUV (YUV:"1"Fix)	0	0	0	0
	FIX	44	VPW	V Pulse Wide	1			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	45	DTH	DITHER THRESHOLD LEVEL CONTROL at IIC AUTOD=ON	1			
	FIX	46	YOFF	Y OUTPUT MUTE	0			
	FIX	47	VSSW	SYNC SLICE LEVEL(V) Wide Window	0			
	FIX	48	AF2S	AFC2 timing SW	0			
	FIX	49	VSL2	Digital V_SYNC_LPF(fall)	1			
	FIX	50	VSL1	Digital V_SYNC_LPF(rise)	0			
	FIX	51	VSHE	V-SHRINK MODE for AV-NoSync	0			
	FIX	52	DSCS	CLOCK DIV SEL	0	0	1	0
	FIX	53	14HI	4fsc(Skew)CLK POLARITY	1			
	FIX	54	14HD	4fscCLK(Skew)CLK DELAY ADJUST	0			
	FIX	55	DSI	8fscCLK POLARITY	1			
	FIX	56	DSD	8fscCLK DELAY ADJUST	0			
	FIX	57	ADCD	ADC CLK DELAY ADJUST	1			
	FIX	58	WSTH	WEAK_SIGNAL VTH	0			
	FIX	59	WSVA	WEAK SIGNAL VIDEO ATT	0			
	FIX	60	WSCA	WEAK SIGNAL CHROMA ATT	0			
	FIX	61	VREF	AD REFERNCE SELECT(VZ)	0			
	FIX	62	DCCK	AD REFERNCE SELECT(VZ)	12	12	0	12
	FIX	63	OSDC	OSD COMP	0			
	FIX	64	HLM1	H/W AKB LIM1	4			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	65	HLM2	H/W AKB LIM2	12			
	FIX	66	HLM3	H/W AKB LIM3	21			
	FIX	67	HAD1	H/W AKB SPEED1	2			
	FIX	68	HAD2	H/W AKB SPEED2	6			
	FIX	69	HAKE	H/W AKB MANUAL (MCU)/HARD	1			
	FIX	70	HASP	H/W AKB SPEED	3			
	FIX	71	HERL	H/W AKB ERROR DET THRESH	10			
	FIX	72	HLMC	H/W AKB ERROR DET TIME	15			
	FIX	73	HPWL	H/W AKB POWER ON TRESH	4			
	FIX	74	HPWC	H/W AKB POWER ON TIME	2			
	FIX	75	HFMT	POWER ON H/W AKB2 HOLD TIMER(@100msec) [0 : No Hold]	20			
	FIX	76	SPMT	AKB POWER ON MUTE EXIT TIMER(@100msec)	120			
	FIX	77	Y16M	YUV 16M	1			
	FIX	78	PCLP	Pedestal Clamp	0			
MICROPROCESSOR	FIX	1	DISP	OSD horizontal position	88			
	FIX	2	MEDP	Menu display postion	110			
	FIX	3	HRLW	Low limit of H-pulse counting window (RF)	16			
	FIX	4	HRHG	High limit of H-pulse counting wondow (RF)	64			
	FIX	5	HSDT	H-pulse Detection(S-Video)	8			
	FIX	6	STPI	Gradual CONTRAST Increase Starting level	40			
	FIX	7	RAPI	Gradual CONTRAST Increase Vsync counter	10			
	FIX	8	ABLT	ABL protection counter	3			
	FIX	9	OSLR	R OSD level	27			
	FIX	10	OSLG	G OSD level	27			
	FIX	11	OSLB	B OSD Level	27			
	FIX	12	DIOF	Digital Input Offset	60			
	FIX	13	PDL1	Turn on the Power Relay	2			
	FIX	14	HLDD	Counter for Hold Down detection for OCP SelfDiagnosis	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
FEATURE	VAR	1	ID0	Language related	73			
	VAR	2	ID1	Video ralated	7			
	VAR	3	ID2	Audio related	3			
	VAR	4	ID3	Miscellaneous	32			
	VAR	5	ID4	Miscellaneous	128			
	VAR	6	ID5	Miscellaneous	16			
	VAR	7	ID6	Miscellaneous	0			
	VAR	8	ID7	Miscellaneous	33			
QM	FIX	1	INFO	Service Information Display (For Engineering Use)	0			
	FIX	2	GFXX	Graphics Origin X Offset	114			
	FIX	3	CFXY	Graphics Origin Y Offset	36			
	FIX	4	CGBRT	Closed Caption Brigthness	80			
	FIX	5	CGCON	Closed Caption Contrast	50			
	FIX	6	MBRT	MENU Brightness	80			
	FIX	7	MCON	MENU Contrast	80			
	FIX	8	UCNT1	User Default Picture Contrast (YCbCr side output)	128			
	FIX	9	UBRT1	User Dafault Picture Brighteness (YCbCr side output)	124			
	FIX	10	UCOL1	User Default Picture Color (YCbCr side output)	70			
	FIX	11	UTNT1	User Default Picture Tint (YCbCr side output)	64			
	FIX	12	UCLO2	User Default Picture Color (Y/C side output)	0			
	FIX	13	UTNT2	User Default Pincture Tint (Y/C side output)	0			
	FIX	14	PFXX	Picture and Graphics Origin X Offset	117			
	FIX	15	PFXY	Picture and Graphics Origin Y Offset	18			
	FIX	16	CRADJ	Adjust Croma control	0			
	FIX	17	CRLT	Croma Adjust Top Limit (use at CRADJ=1)	406			
	FIX	18	CRLB	Croma Adjust Bottom Limit (use at CRADJ=1)	90			
	FIX	19	CRLF	Croma Adjust Fix value (use at CRADJ=2)	256			
	FIX	20	SNRT0	Video Mute Timing by SNR(db) value in 8VSB	14			
	FIX	21	SNRT1	Video Mute Timing by SNR(db) value in 64QAM (QAM only)	14			
	FIX	22	SNRT2	Video Mute Timing by SNR(db) value in 256QAM (QAM only)	14			
	FIX	23	ERRT	Video Mute Timing by Error value	3			
	FIX	24	FONT	Display front	0			
	FIX	25	H-BLK	Half blank control	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
QT	FIX	1	CVSB	Service Information Display (For Engineering Use)	0			
	FIX	2	WSC0	Graphics Origin X Offset	0			
	FIX	3	WSC1	Graphics Origin Y Offset	0			
	FIX	4	WSC2	Closed Caption Brigthness	0			
	FIX	5	WSC3	Closed Caption Contrast	0			
	FIX	6	WSC4	MENU Brightness	0			
	FIX	7	WSC5	MENU Contrast	0			
	FIX	8	WSC6	User Default Picture Contrast (YCbCr side output)	0			
	FIX	9	WSC7	User Dafault Picture Brighteness (YCbCr side output)	0			
	FIX	10	WSC8	User Default Picture Color (YCbCr side output)	0			
	FIX	11	WSC9	User Default Picture Tint (YCbCr side output)	0			
	FIX	12	CADTV	User Default Picture Color (Y/C side output)	0			

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(=) Means not memorized in NVM

Version 1.0

Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VERSION	Fix	0			=	=	=	=
DEF	VAR	1	HSIZ	H SIZE(EW DC)	28	29	29	29
	VAR	2	HPOS	H POSITION	19	20	20	11
	VAR	3	VSIZ	V RAMP SIZE	27	28	29	26
	VAR	4	VPOS	V POSITION(RAMP DC)	32	32	32	30
	VAR	5	VLIN	V LINEARITY	38			
	VAR	6	SCOR	S CORRECTION	51			
	VAR	7	VBOW	BOW	45			
	VAR	8	VANG	ANGLE	37			
	VAR	9	TRAP	EW TRAPESIUM	33			
	VAR	10	PAMP	EW PIN	31			
	VAR	11	UPIN	UPPER PIN	28			
	VAR	12	LPIN	LOWER PIN	28			
	VAR	13	TROT	TROT	109			
	VAR	14	HBLK	H BLK mode select	0			
	VAR	15	RBLK	HBLK rear timing	29	29	29	21
	VAR	16	LBLK	HBLK front timing	59	59	59	54
	VAR	17	VBLK	V BLK width	3			
	FIX	18	HMSK	TOP VEND(when MACROVISION)prevent OFF	0			
	FIX	19	HDW	H PULSE WIDTH(25u 19u)	1			
	FIX	20	AFC	AFC GAIN	0			
	FIX	21	AFC1	AFC1 TIME CONSTANT	3			
	FIX	21	AFC1	AFC1 TIME CONSTANT		3	3	3
	FIX	22	AFCW	AFC1 PULL IN WIDE	1			
	FIX	23	CDMD	V DET WINDOW SW TIMING	1			
	FIX	24	HSS	SYNC SLICE LEVEL(H sepa)	0			
	FIX	25	VSS	SYNC SLICE LEVEL(V sepa)	3			
	FIX	26	SLUD	Auto Slice level UP DOWN	0			
	FIX	27	JPSW	Jump SW	0			
	FIX	28	HOSC	H VCO fo offset ADJUST OFFSET	3			
	FIX	29	EHT	EHT	4			
	FIX	30	EHTG	EHT MODE	1			
	FIX	31	SLOH	LPF SYNC H	1			
	FIX	32	SLOV	LPF SYNC V	3			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
DEF	FIX	33	SLOP	LPF SYNC	3			
	FIX	34	SLVC	LPF SYNC VCOIN OFF	0			
	FIX	35	SLHC	LPF SYNC HCOIN OFF	0			
	FIX	36	VF50	VFREERUN 50Hz	0			
	FIX	37	VSET	V FREQ SET 50\60 AUTO	0			
16:9	VAR	1	VSIZ	V RAMP SIZE	32			
	VAR	2	VPOS	V POSITION(RAMP DC)	33			
	VAR	3	VLIN	V LINEARITY	35			
	VAR	4	SCOR	S CORRECTION	24			
	VAR	5	TRAP	EW TRAPESIUM	28			
	VAR	6	PAMP	EW PIN	12			
	VAR	7	UPIN	UPPER PIN	32			
	VAR	8	LPIN	LOWER PIN	32			
	VAR	9	ABLG	ABL GAIN	1			
	VAR	10	SCON	SUB CONTRAST LEVEL	10			
	VAR	11	VPW	Jump Pulse Width	1			
VP1	VAR	1	RDRV	R DRIVE	84			
	VAR	2	GDRV	G DRIVE when Color Temp. is "Cool" and "Neutral"	76	76	68	76
	VAR	3	BDRV	B DRIVE when Color Temp. is "Cool" and "Neutral"	91	91	97	91
	VAR	4	RCUT	Hardware AKB(R) CMP DATA	100			
	VAR	5	GCUT	Hardware AKB(G) CMP DATA when Color Temp. is "Cool" and "Neutral"	55	55		
	VAR	5	GCUT	Hardware AKB(G) CMP DATA when Color Temp. is "Cool" and "Neutral"			54	55
	VAR	6	BCUT	Hardware AKB(B) CMP DATA when Color Temp. is "Cool" and "Neutral"	60	60		
	VAR	6	BCUT	Hardware AKB(B) CMP DATA when Color Temp. is "Cool" and "Neutral"			45	60
	VAR	7	SCON	SUB CONTRAST LEVEL	17			
	VAR	8	SHUE	SUB TINT(HUE)	11	7	8	7
	VAR	9	SCOL	SUB COLOR LEVEL for Not NR	5	4	23	5
	VAR	10	SBRT	SUB BRIGHTNESS	11	11	14	16
	VAR	11	RON	R OUTPUT ON (0:R Output OFF 1:R Output ON)	1			
	VAR	12	GON	G OUTPUT ON (0:G Output OFF 1:G Output ON)	1			
	VAR	13	BON	B OUTPUT ON (0:B Output OFF 1:B Output ON)	1			
	FIX	14	BLLV	BLUE STRETCH(00:no <-> 11:deep) only Color Temp "Cool"	1			
	FIX	15	BLLM	BLUE STRETCH Y LEREL LIMIT LEVEL	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VP1	FIX	16	MTRX	MATRIX RATIO SELECT	1			
	FIX	17	AXIS	R-Y PHASE OFFSET	52			
	FIX	18	GYG	G-Y Gain	0			
	FIX	19	GYP	G-Y PHASE	0			
	FIX	20	SSHO	SUB SHARPNESS GAIN(OVER) RF VIDEO	12	14	2	16
	FIX	21	SSHP	SUB SHARPNESS GAIN(PRE) RF VIDEO	17	19	13	21
	FIX	22	SHPF	SHRPNESS fo(00:2 CLK <-> 11:5 CLK)	0			
	FIX	22	SHPF	SHRPNESS fo(00:2 CLK <-> 11:5 CLK)		1	0	1
	FIX	23	SHCL	SHARPNESS CORING LEVEL	1			
	FIX	24	SHMX	SHARPNESS LIMITTER LEVEL	15			
	FIX	25	AKBD	AKB Self Diagnostic Counter(@1sec)	5			
	FIX	26	AKBS	AKB Switch (0 : AKB OFF 1 : H W AKB ON)	1			
	FIX	27	REFP	AKB REFPLS timing ("0"Fix when 16:9On)	0			
	FIX	28	YNRC	YNR LIMITER LEVEL	15			
	FIX	29	VYNR	VYNR LIMITER LEVEL	0			
	FIX	30	BKON	BLACK STRETCH ON	1			
	FIX	31	BKRC	BLACK STRETCH DETECTOR TIME CONSTANT1	252			
	FIX	32	BKDP	BLACK STRETCH START POINT	3			
	FIX	33	BKSP	BLACK STRETCH POINT	2			
	VAR	34	UOFS	U IN OFFSET	32		72	78
	VAR	35	VOFS	V IN OFFSET	32		76	74
	FIX	36	TAKE	BPF F0 UP	0			
	FIX	36	TAKE	BPF F0 UP			0	0
	FIX	37	TAKW	BPF F0 UP WIDTH	0			
	FIX	37	TAKW	BPF F0 UP WIDTH			0	0
VP2	FIX	1	VMOF	VM LEVEL at "Off" Setting	2			
	FIX	2	VMLO	VM LEVEL at "Low" Setting	5			
	FIX	3	VMHI	VM LEVEL at "High" Setting	11			
	FIX	4	VMDL	VM DELAY	11	11	7	11
	FIX	5	VMPL	VM PORALITY	1			
	FIX	6	VMWD	VM WIDTH	0			
	FIX	7	VMCL	VM CORING LEVEL	0			
	FIX	8	VMMX	VM LIMITER LEVEL	15			
	FIX	9	CKLV	COLOR KILLER VTH	1			
	FIX	10	CKON	FORCE KILLER	0			
	FIX	11	VACL	V APERTURE CORING LEVEL	0			
	FIX	12	VAGA	V APERTURE GAIN LEVEL	7			
	FIX	13	VAMX	V APERTURE LIMITER LEVEL	15			
	FIX	14	GAMM	GAMMA(00:no <-->11:deep)	2			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
VP2	FIX	15	YDLY	Y DELAY TIME	3			
	FIX	16	CDLY	C DELAY	2			
	FIX	17	BGPP	BGP(for C DECODER)TIMING	11			
	FIX	18	NRBP	NOISE DET BPF	0			
	FIX	19	NRLS	NOISE DET POS	0			
	FIX	20	NRDT	NOISE DET CORING LEVEL	0			
	FIX	21	GDOF	G DRIVE OFFSET only Color Temp. "Warm"	18			
	FIX	22	BDOF	B DRIVE OFFSET only Color Temp. "Warm"	31			
	FIX	23	GCOF	GCUT CMP DATA OFFSET only Color Temp. "Warm"	2			
	FIX	24	BCOF	BCUT CMP DATA OFFSET only Color Temp. "Warm"	4			
	FIX	25	GDOC	G DRIVE OFFSET only Color Temp. "Cool"	0			
	FIX	26	BDOC	B DRIVE OFFSET only Color Temp. "Cool"	0			
	FIX	27	GCOC	GCUT CMP DATA OFFSET only Color Temp. "Cool"	0			
	FIX	28	BCOC	BCUT CMP DATA OFFSET only Color Temp. "Cool"	0			
	FIX	29	DCTV	DCTRANSFER VTH	3			
	FIX	30	DCTG	DCTRANSFER GAIN	10			
Y C	FIX	1	ALFA	ADAPTIVE DET SENSITIVITY	1			
	FIX	2	YCMD	YC SEPA FORCE SELECT(00:ADAPTIVE 01:H 10:V 11:HV)	0			
NR	FIX	1	SCOL	SUB COLOR LEVEL for NR	7			
	FIX	2	SHCL	SHARPNESS NOISE CORING LEVEL for NR	15			
	FIX	3	SHMX	SHARPNESS LIMITTER LEVEL for NR	7			
	FIX	4	YNRC	YNR LIMITER LEVEL for NR	7			
	FIX	5	VMHI	VM LEVEL at "High" Setting for NR	7			
	FIX	6	VMCL	VM CORING LEVEL for NR	0			
	FIX	7	VMMX	VM LIMITER LEVEL for NR	7			
	FIX	8	VAGA	V APERTURE GAIN LEVEL for NR	0			
	FIX	9	GAMM	GAMMA(00:no <-->11:deep) for NR	0			
	FIX	10	YNRS	YNR ON for NR	1			
	FIX	11	WSTH	WEAK_SIGNAL VTH for NR	7			
	FIX	12	WSVA	WEAK SIGNAL VIDEO ATT for NR	0			
	FIX	13	WSCA	WEAK SIGNAL CHROMA ATT for NR	5			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
PALLET VIVID	FIX	1	VPIC	Picture(VIVID)	63			
	FIX	2	VBRI	Brightness(VIVID)	28			
	FIX	3	VCOL	Color(VIVID)	33			
	FIX	4	VHUE	Hue(VIVID)	31			
	FIX	5	VSHA	Sharpness(VIVID)	35			
	FIX	6	VVM	VM(VIVID)	2			
	FIX	7	VTRI	Color Temp(VIVID)	0			
	FIX	8	VAPA	Aperture G(VIVID)	7			
	FIX	9	VGMA	Gamma(VIVID)	2			
	FIX	10	VDCT	DCT LV(VIVID)	10			
	FIX	11	BKDP	BLACK STRETCH DEPTH(VIVID)	3			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(VIVID)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(VIVID)	2			
	FIX	14	CONO	CONTRAST OFFSET for RF(VIVID)	0			
	FIX	15	COOF	Contrast Offset	0			
PALLET STD	FIX	1	VPIC	Picture(STD)	58			
	FIX	2	VBRI	Brightness(STD)	31			
	FIX	3	VCOL	Color(STD)	31			
	FIX	4	VHUE	Hue(STD)	31			
	FIX	5	VSHA	Sharpness(STD)	37			
	FIX	6	VVM	VM(STD)	1			
	FIX	7	VTRI	Color Temp(STD)	1			
	FIX	8	VAPA	Aperture G(STD)	4			
	FIX	9	VGMA	Gamma(STD)	1			
	FIX	10	VDCT	DCT LV(STD)	9			
	FIX	11	BKDP	BLACK STRETCH DEPTH(STD)	2			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(STD)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(STD)	1			
	FIX	14	CONO	CONTRAST OFFSET for RF(STD)	0			
	FIX	15	COOF	Contrast Offset	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
PALLET MOVIE	FIX	1	VPIC	Picture(MOVIE)	45			
	FIX	2	VBRI	Brightness(MOVIE)	28			
	FIX	3	VCOL	Color(MOVIE)	31			
	FIX	4	VHUE	Hue(MOVIE)	31			
	FIX	5	VSHA	Sharpness(MOVIE)	34			
	FIX	6	VVM	VM(MOVIE)	1			
	FIX	7	VTRI	Color Temp(MOVIE)	2			
	FIX	8	VAPA	Aperture G(MOVIE)	3			
	FIX	9	VGMA	Gamma(MOVIE)	1			
	FIX	10	VDCT	DCT LV(MOVIE)	9			
	FIX	11	BKDP	BLACK STRETCH DEPTH(MOVIE)	1			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(MOVIE)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(MOVIE)	1			
	FIX	14	CONO	CONTRAST OFFSET for RF(MOVIE)	0			
	FIX	15	COOF	Contrast Offset	0			
PALLET PRO	FIX	1	VPIC	Picture(PRO)	39			
	FIX	2	VBRI	Brightness(PRO)	31			
	FIX	3	VCOL	Color(PRO)	31			
	FIX	4	VHUE	Hue(PRO)	31			
	FIX	5	VSHA	Sharpness(PRO)	31			
	FIX	6	VVM	VM(PRO)	0			
	FIX	7	VTRI	Color Temp(PRO)	1			
	FIX	8	VAPA	Aperture G(PRO)	0			
	FIX	9	VGMA	Gamma(PRO)	0			
	FIX	10	VDCT	DCT LV(PRO)	2			
	FIX	11	BKDP	BLACK STRETCH DEPTH(PRO)	1			
	FIX	12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(PRO)	252			
	FIX	13	BKSP	BLACK STRETCH POINT(PRO)	0			
	FIX	14	CONO	CONTRAST OFFSET for RF(PRO)	0			
	FIX	15	COOF	Contrast Offset	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	1	YNRS	YNR ON	0			
	FIX	2	CLPS	CLAMP CONTROL SW 0:CLAMP OFF 1:CLAMP AUTO1 mode (usual procedure) 2:CLAMP ON mode 3: CLAMP AUTO2 mode (New procedure)	1			
	FIX	3	VMG2	MODULATOR FEEDBACK GAIN CONTROL	1			
	FIX	4	CLPT	CLAMP AUTO ON KEEP TIMER COUNT (@100ms)	15			
	FIX	5	AASL	C DECODER TIME CONSTANT(32,16,8,1H)	2			
	FIX	6	BASL	ACC TIME CONSTANT	0			
	FIX	7	ACTH	ROM HYS	95			
	FIX	8	AVAV	AVE SEL AV	3			
	FIX	9	B2TH	B2COMP	0			
	FIX	10	CORL	R CUTOFF lower	0			
	FIX	11	CORH	R CUTOFF upper	1			
	FIX	12	COGL	G CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0			
	FIX	13	COGH	G CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1			
	FIX	14	COBL	B CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0			
	FIX	15	COBH	B CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1			
	FIX	16	ALSP	ACL SPEED	0			
	FIX	17	ALAS	ACL ATACK SPEED	146			
ASIC	FIX	18	ABLG	ABL GAIN	4			
	FIX	19	AKBP	AKB PULSE HEIGHT	10			
	FIX	20	AALG	ANALOG ACL GAIN CONTROL	0			
	FIX	21	AALS	ANALOG ACL ON/OFF CONTROL	1			
	FIX	22	UVDT	UVIN DITHER TEST	12			
	FIX	23	YDT	Y DITHER LEVEL	1			
	FIX	24	HFFR	AFC1 FORCE FREERUN	0			
	FIX	25	HFUP	H FREERUN FREQUENCY UP(700Hz)	0			
	FIX	26	JSWW	Jump Pulse Width	0			
	FIX	27	XF0A	VCXO FREERUN ADJUST	0			
	FIX	28	BGST	BGP(for PLL) TIMING	16	16	6	16
	FIX	29	XPHA	VCXO PHASE ADJUST	8			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	30	HRMP	AFC2 TIME CONSTANT	3			
	FIX	31	RPLU	REF PLL TIME CONSTANT	3			
	FIX	32	RPLB	REF PLL TIME CONSTANT	1			
	FIX	33	XF0B	VCXO Fo ADJUST	0			
	FIX	34	RPLS	REF VCO FB LOOP SELECT	0			
	FIX	35	SSM	SyncSepaMasking CONTROL	0			
	FIX	36	VSAG	V-SAG prevent ON	0			
	FIX	37	AFC2	AFC2 GAIN CONTROL	0			
	FIX	38	XPLU	ACP TIME CONSTANT	1			
	FIX	39	AAPC	APC TIME CONSTANT BW SLOW	0			
	FIX	40	CDM2	V_LOGIC SW	1			
	FIX	41	MHDL	BGP SEL	1			
	FIX	42	HRPP	FRAMP RRAMP H OUT CONTROL RANGE	2			
	FIX	43	DSCK	DS DAC CLK SW for only Not YUV (YUV:"1"Fix)	0	0	0	0
	FIX	44	VPW	V Pulse Wide	1			
	FIX	45	DTH	DITHER THRESHOLD LEVEL CONTROL at IIC AUTOD=ON	1			
	FIX	46	YOFF	Y OUTPUT MUTE	0			
	FIX	47	VSSW	SYNC SLICE LEVEL(V) Wide Window	0			
	FIX	48	AF2S	AFC2 timing SW	0			
	FIX	49	VSL2	Digital V_SYNC_LPF(fall)	1			
	FIX	50	VSL1	Digital V_SYNC_LPF(rise)	0			
	FIX	51	VSHE	V-SHRINK MODE for AV-NoSync	0			
	FIX	52	DSCS	CLOCK DIV SEL	0	0	1	0
	FIX	53	14HI	4fsc(Skew)CLK POLARITY	1			
	FIX	54	14HD	4fscCLK(Skew)CLK DELAY ADJUST	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
ASIC	FIX	55	DSI	8fscCLK POLARITY	1			
	FIX	56	DSD	8fscCLK DELAY ADJUST	0			
	FIX	57	ADCD	ADC CLK DELAY ADJUST	1			
	FIX	58	WSTH	WEAK_SIGNAL VTH	0			
	FIX	59	WSVA	WEAK SIGNAL VIDEO ATT	0			
	FIX	60	WSCA	WEAK SIGNAL CHROMA ATT	0			
	FIX	61	VREF	AD REFERNCE SELECT(VZ)	0			
	FIX	62	DCCK	AD REFERNCE SELECT(VZ)	12	12	0	12
	FIX	63	OSDC	OSD COMP	0			
	FIX	64	HLM1	H/W AKB LIM1	4			
	FIX	65	HLM2	H/W AKB LIM2	12			
	FIX	66	HLM3	H/W AKB LIM3	21			
	FIX	67	HAD1	H/W AKB SPEED1	2			
	FIX	68	HAD2	H/W AKB SPEED2	6			
	FIX	69	HAKE	H/W AKB MANUAL (MCU)/HARD	1			
	FIX	70	HASP	H/W AKB SPEED	3			
	FIX	71	HERL	H/W AKB ERROR DET THRESH	10			
	FIX	72	HLMC	H/W AKB ERROR DET TIME	15			
	FIX	73	HPWL	H/W AKB POWER ON TRESH	4			
	FIX	74	HPWC	H/W AKB POWER ON TIME	2			
	FIX	75	HFMT	POWER ON H/W AKB2 HOLD TIMER(@100msec) [0 : No Hold]	20			
	FIX	76	SPMT	AKB POWER ON MUTE EXIT TIMER(@100msec)	120			
	FIX	77	Y16M	YUV 16M	1			
	FIX	78	PCLP	Pedestal Clamp	0			

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Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
MICROPROCESSOR	FIX	1	DISP	OSD horizontal position	88			
	FIX	2	MEDP	Menu display postion	110			
	FIX	3	HRLW	Low limit of H-pulse counting window (RF)	16			
	FIX	4	HRHG	High limit of H-pulse counting wondow (RF)	64			
	FIX	5	HSDT	H-pulse Detection(S-Video)	8			
	FIX	6	STPI	Gradual CONTRAST Increase Starting level	40			
	FIX	7	RAPI	Gradual CONTRAST Increase Vsync counter	10			
	FIX	8	ABLT	ABL protection counter	3			
	FIX	9	OSLR	R OSD level	27			
	FIX	10	OSLG	G OSD level	27			
	FIX	11	OSLB	B OSD Level	27			
	FIX	12	DIOF	Digital Input Offset	60			
	FIX	13	PDL1	Turn on the Power Relay	2			
	FIX	14	HLDD	Counter for Hold Down detection for OCP SelfDiagnosis	0			
FEATURE	VAR	1	ID0	Language related	73			
	VAR	2	ID1	Video ralated	7			
	VAR	3	ID2	Audio related	3			
	VAR	4	ID3	Miscellaneous	32			
	VAR	5	ID4	Miscellaneous	128			
	VAR	6	ID5	Miscellaneous	16			
	VAR	7	ID6	Miscellaneous	0			
	VAR	8	ID7	Miscellaneous	33			

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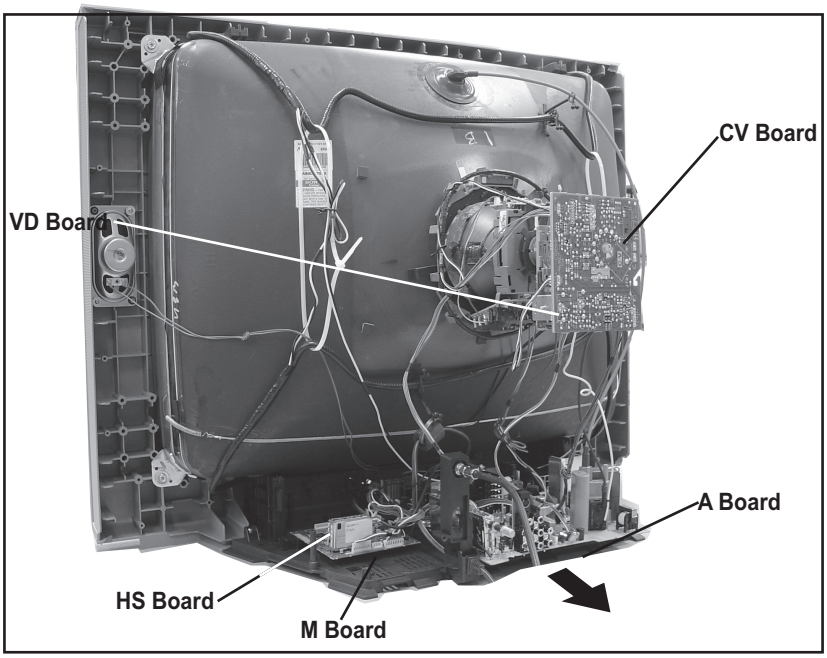
Service Group	Fix/ Var	No.	Name	Description	NTSC Init Data	Video Init Data	YUV Init Data	Digital Init Data
QM	FIX	1	INFO	Service Information Display (For Engineering Use)	0			
	FIX	2	GFXX	Graphics Origin X Offset	114			
	FIX	3	CFXY	Graphics Origin Y Offset	36			
	FIX	4	CGBRT	Closed Caption Brigthness	80			
	FIX	5	CGCON	Closed Caption Contrast	50			
	FIX	6	MBRT	MENU Brightness	80			
	FIX	7	MCON	MENU Contrast	80			
	FIX	8	UCNT1	User Default Picture Contrast (YCbCr side output)	128			
	FIX	9	UBRT1	User Dafault Picture Brighteness (YCbCr side output)	124			
	FIX	10	UCOL1	User Default Picture Color (YCbCr side output)	70			
	FIX	11	UTNT1	User Default Picture Tint (YCbCr side output)	64			
	FIX	12	UCLO2	User Default Picture Color (Y/C side output)	0			
	FIX	13	UTNT2	User Default Pincture Tint (Y/C side output)	0			
	FIX	14	PFXX	Picture and Graphics Origin X Offset	117			
	FIX	15	PFXY	Picture and Graphics Origin Y Offset	18			
	FIX	16	CRADJ	Adjust Croma control	0			
	FIX	17	CRLT	Croma Adjust Top Limit (use at CRADJ=1)	406			
	FIX	18	CRLB	Croma Adjust Bottom Limit (use at CRADJ=1)	90			
	FIX	19	CRLF	Croma Adjust Fix value (use at CRADJ=2)	256			
	FIX	20	SNRT0	Video Mute Timing by SNR(db) value in 8VSB	14			
	FIX	21	SNRT1	Video Mute Timing by SNR(db) value in 64QAM (QAM only)	14			
	FIX	22	SNRT2	Video Mute Timing by SNR(db) value in 256QAM (QAM only)	14			
	FIX	23	ERRT	Video Mute Timing by Error value	3			
	FIX	24	FONT	Display front	0			
	FIX	25	H-BLK	Half blank control	0			
QT	FIX	1	CVSB	Service Information Display (For Engineering Use)	0			
	FIX	2	WSC0	Graphics Origin X Offset	0			
	FIX	3	WSC1	Graphics Origin Y Offset	0			
	FIX	4	WSC2	Closed Caption Brigthness	0			
	FIX	5	WSC3	Closed Caption Contrast	0			
	FIX	6	WSC4	MENU Brightness	0			
	FIX	7	WSC5	MENU Contrast	0			
	FIX	8	WSC6	User Default Picture Contrast (YCbCr side output)	0			
	FIX	9	WSC7	User Dafault Picture Brighteness (YCbCr side output)	0			
	FIX	10	WSC8	User Default Picture Color (YCbCr side output)	0			
	FIX	11	WSC9	User Default Picture Tint (YCbCr side output)	0			
	FIX	12	CADTV	User Default Picture Color (Y/C side output)	0			

SECTION 5: DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



The components identified by shading and ⚠ symbol are critical for safety. Replace only with part number specified.

The symbol ▬ indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

Le symbole ▬ indique une fusible a action rapide. Doit etre remplace par une fusible de meme yaleur, comme maque.

5-2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM INFORMATION

All capacitors are in µF unless otherwise noted. pF : µµF 50WV or less are not indicated except for electrolytics and tantalums.

All electrolytics are in 50V unless otherwise specified.

All resistors are in ohms. k=1000, M=1000k

Indication of resistance, which does not have one for rating electrical power, is as follows: Pitch : 5mm Rating electrical power :

$^1/_4$ W in resistance, $^1/_{10}$ W and $^1/_8$ W in chip resistance.

: nonflammable resistor.

: fusible resistor.

△ : internal component.

▭ : panel designation and adjustment for repair.

⊥ : earth ground

⏚ : earth-chassis

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

Readings are taken with a color-bar signal input.

Readings are taken with a 10M digital multimeter.

Voltages are DC with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

S : Measurement impossibillity.

: B-line.

(Actual measured value may be different).

⇨: signal path. (RF)

Circled numbers are waveform references.

The components identified by ⋈ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be necessary, replace only with the value originally used.

When replacing components identified by ◪, make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved.
(Refer to Section 3: Safety Related Adjustments on Page 35.)

When replacing the parts listed in the table below, it is important to perform the related adjustments.

Part Replaced (◪)	Adjustment (⋈)
C507, C511, C513, D519, D520, D521, IC001, IC501, IC601, IC602, PH601, R529, R530, R531, R577, T502, T503 (FBT), T505	HV HOLD-DOWN R529, R530, R531, R577

REFERENCE INFORMATION

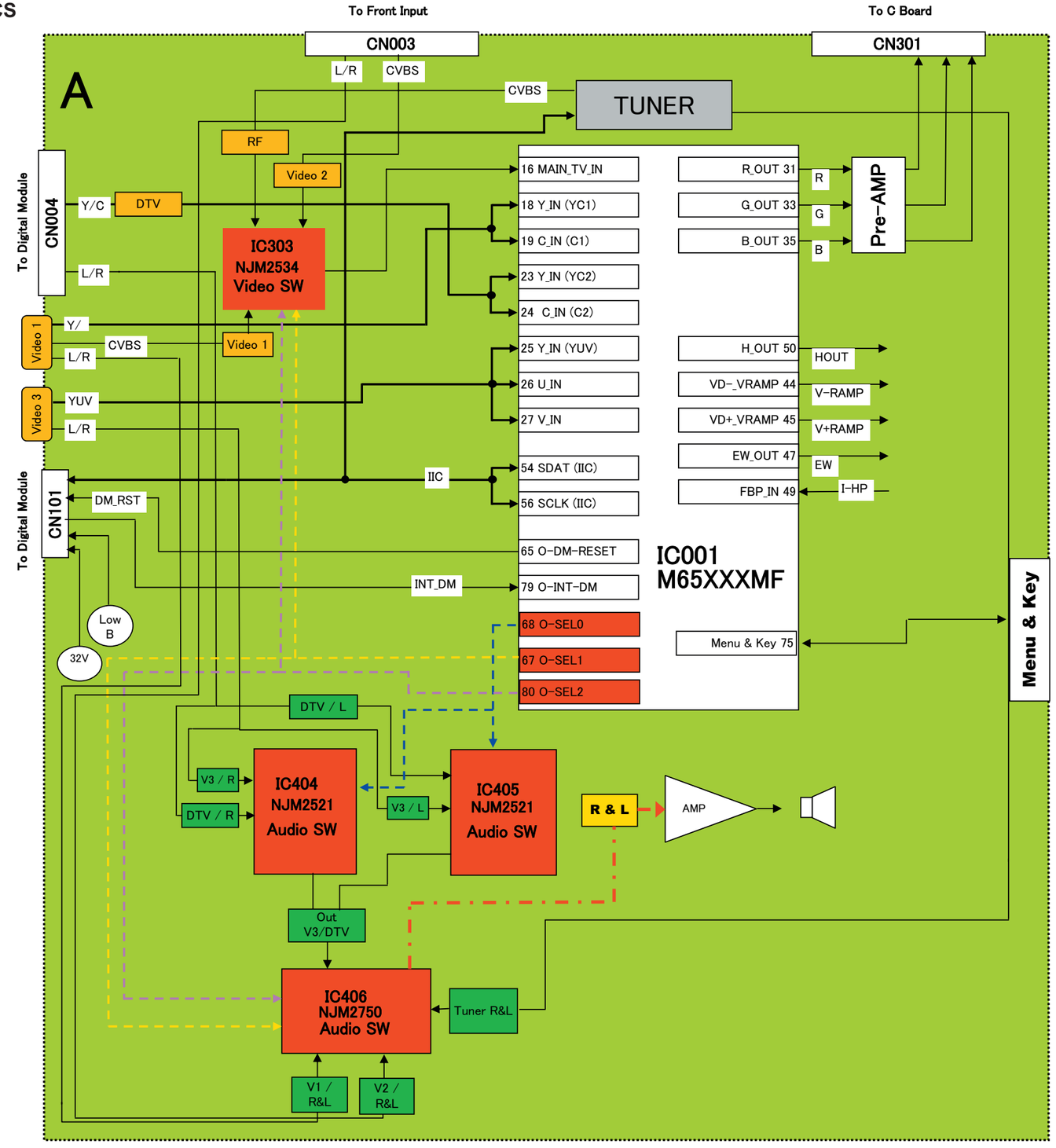
RESISTOR
- : RN METAL FILM
- : RC SOLID
- : FPRD NONFLAMMABLE CARBON
- : FUSE NONFLAMMABLE FUSIBLE
- : RW NONFLAMMABLE WIREWOUND
- : RS NONFLAMMABLE METAL OXIDE
- : RB NONFLAMMABLE CEMENT
- : ※ ADJUSTMENT RESISTOR

COIL
- : LF-8L MICRO INDUCTOR

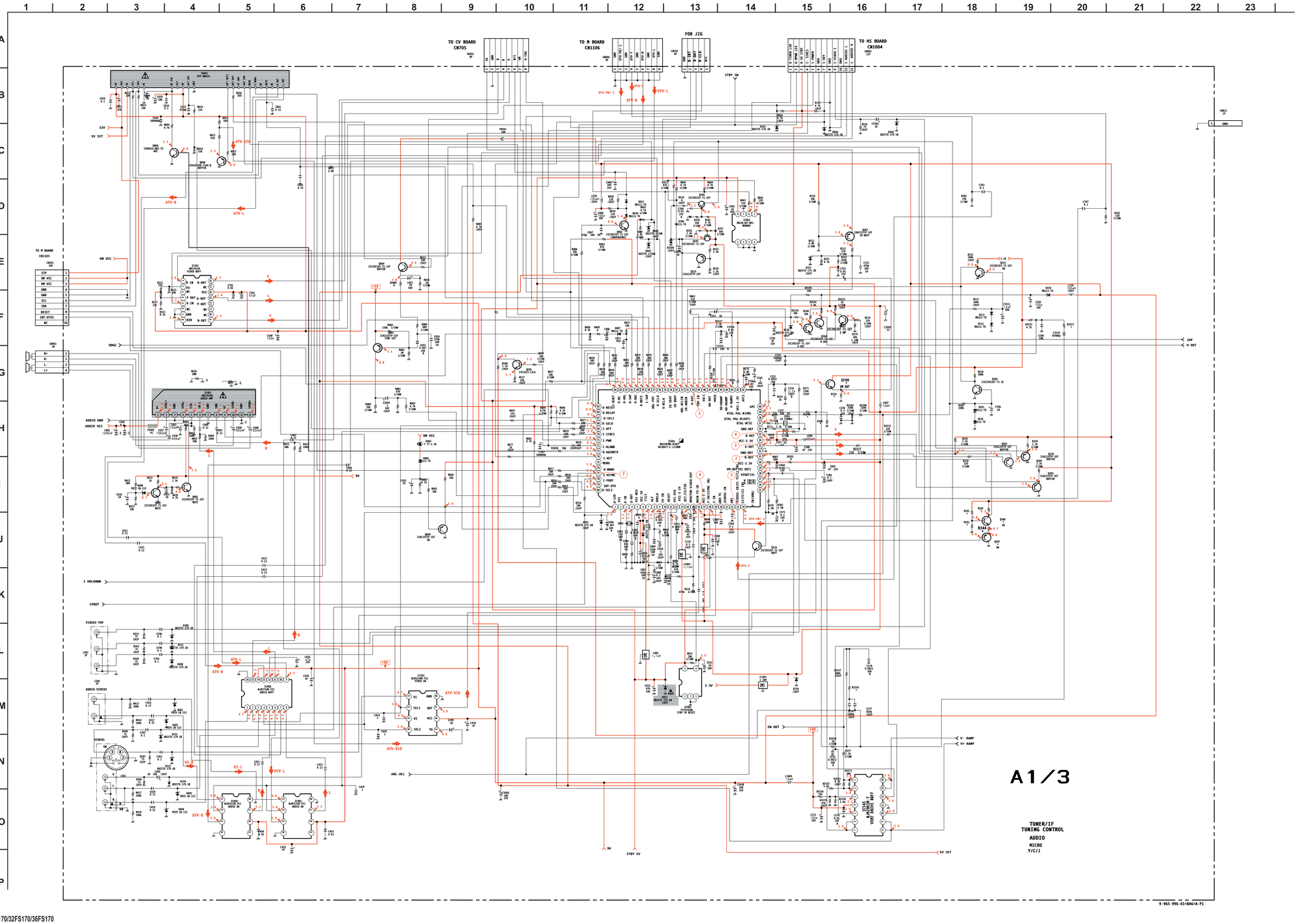
CAPACITOR
- : TA TANTALUM
- : PS STYROL
- : PP POLYPROPYLENE
- : PT MYLAR
- : MPS METALIZED POLYESTER
- : MPP METALIZED POLYPROPYLENE
- : ALB BIPOLAR
- : ALT HIGH TEMPERATURE
- : ALR HIGH RIPPLE

5-3. BLOCK DIAGRAMS AND SCHEMATICS

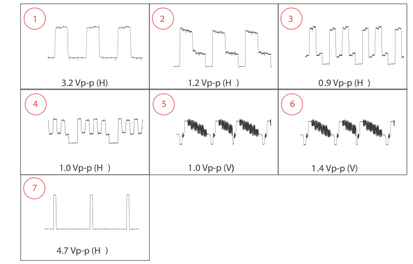
SIGNAL FLOW BLOCK DIAGRAM



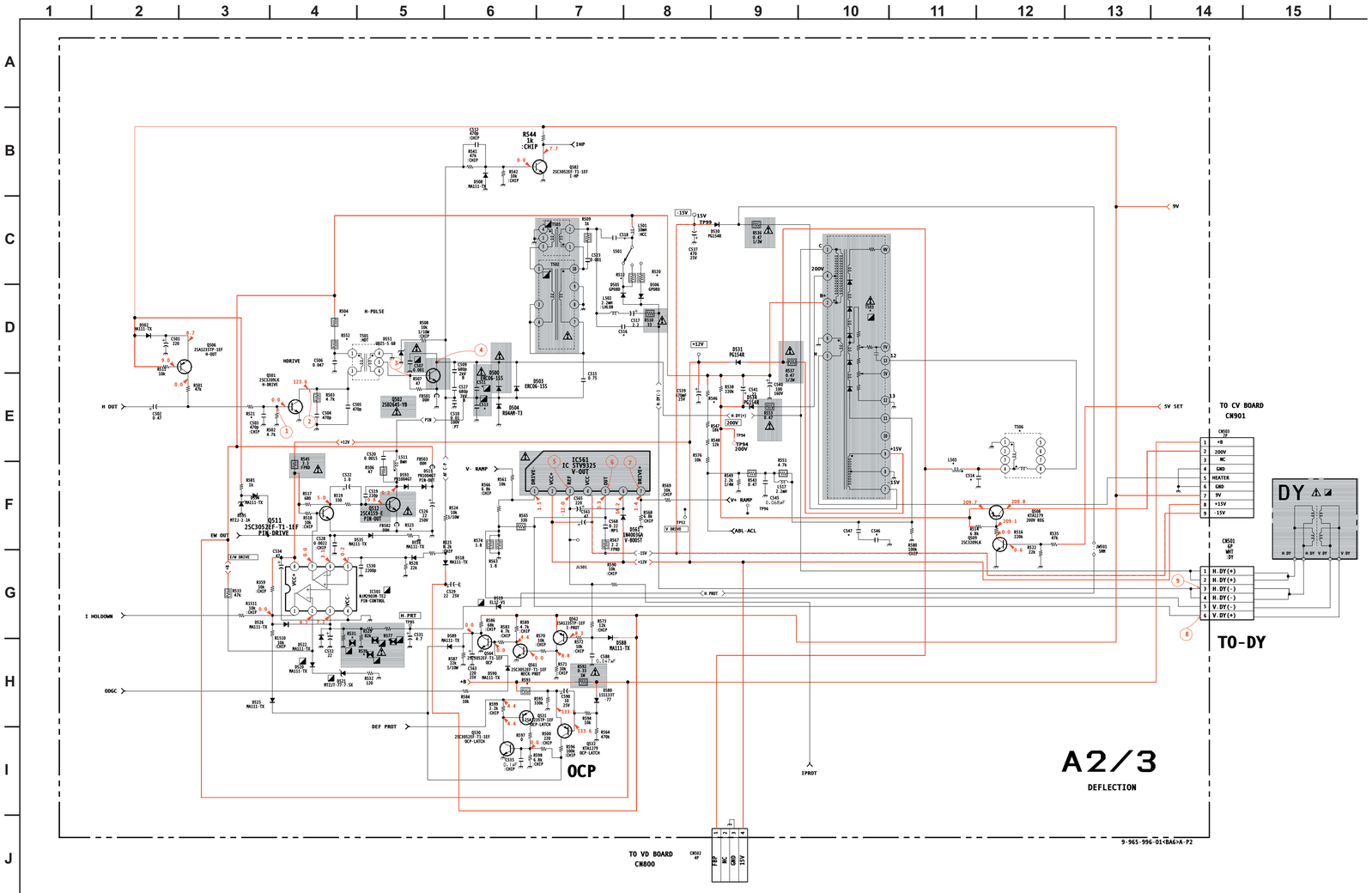
A BOARD SCHEMATIC DIAGRAM (1 OF 3)



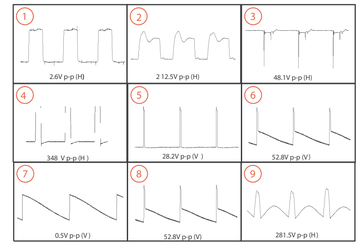
A BOARD WAVEFORMS



A BOARD SCHEMATIC DIAGRAM (2 OF 3)



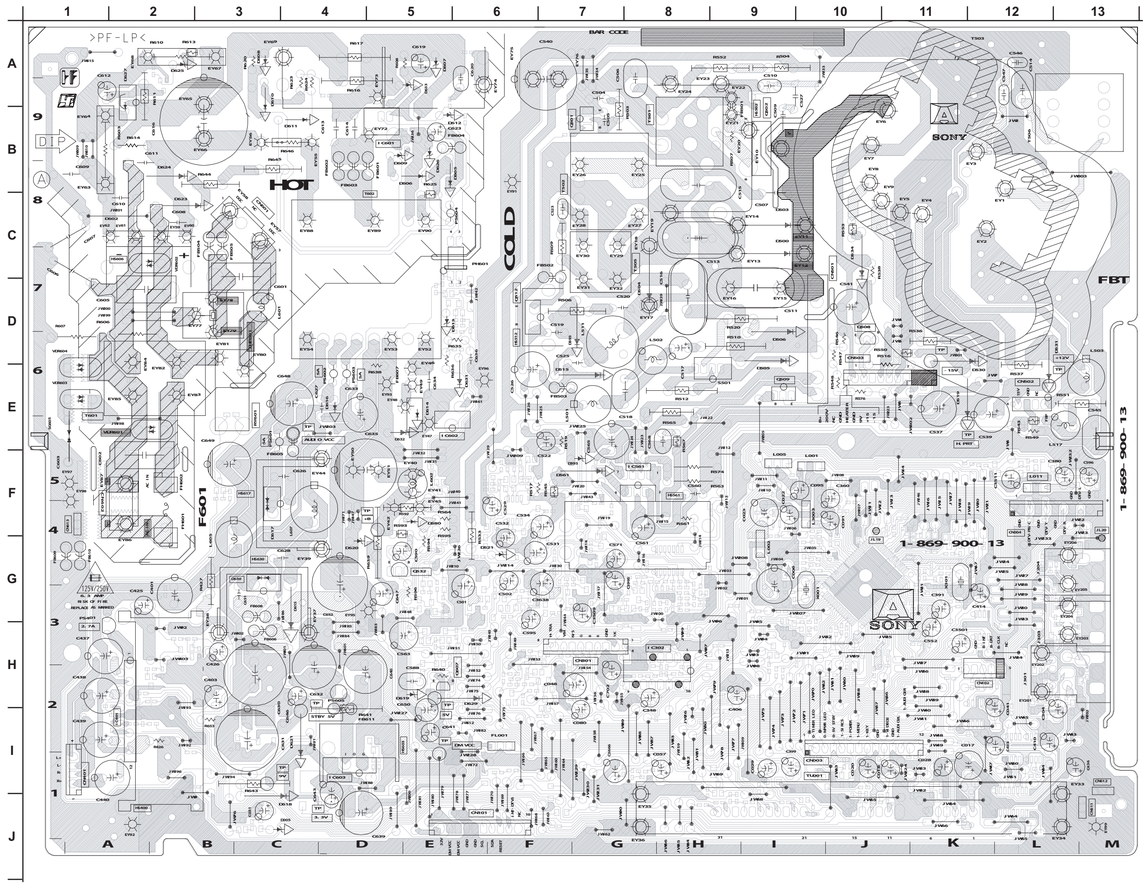
A BOARD WAVEFORMS



A BOARD SCHEMATIC DIAGRAM (3 OF 3)

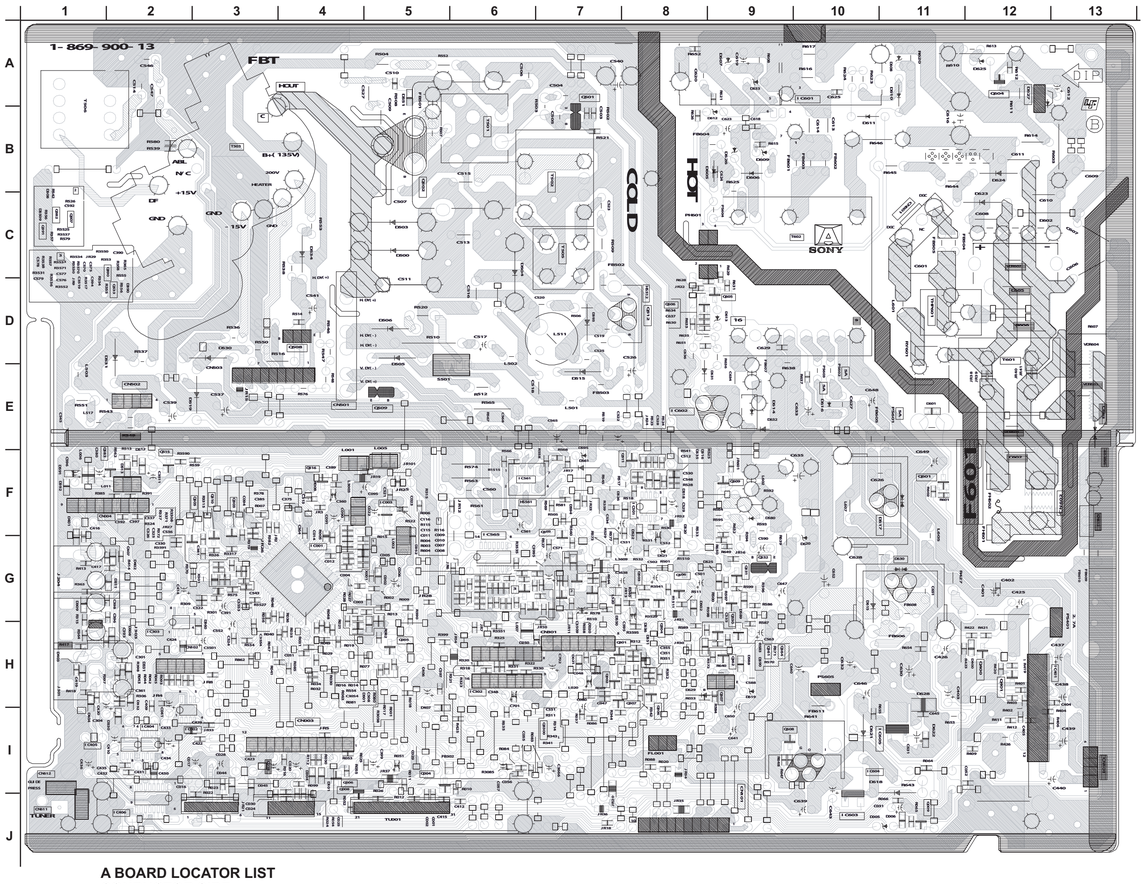
A [TUNER/IF, TUNING CONTROL, AUDIO, MICRO, Y/C/J, DEFLECTION, MAIN POWER SUPPLY]

COMPONENT SIDE



A [TUNER/IF, TUNING CONTROL, AUDIO, MICRO, Y/C/J, DEFLECTION, MAIN POWER SUPPLY]

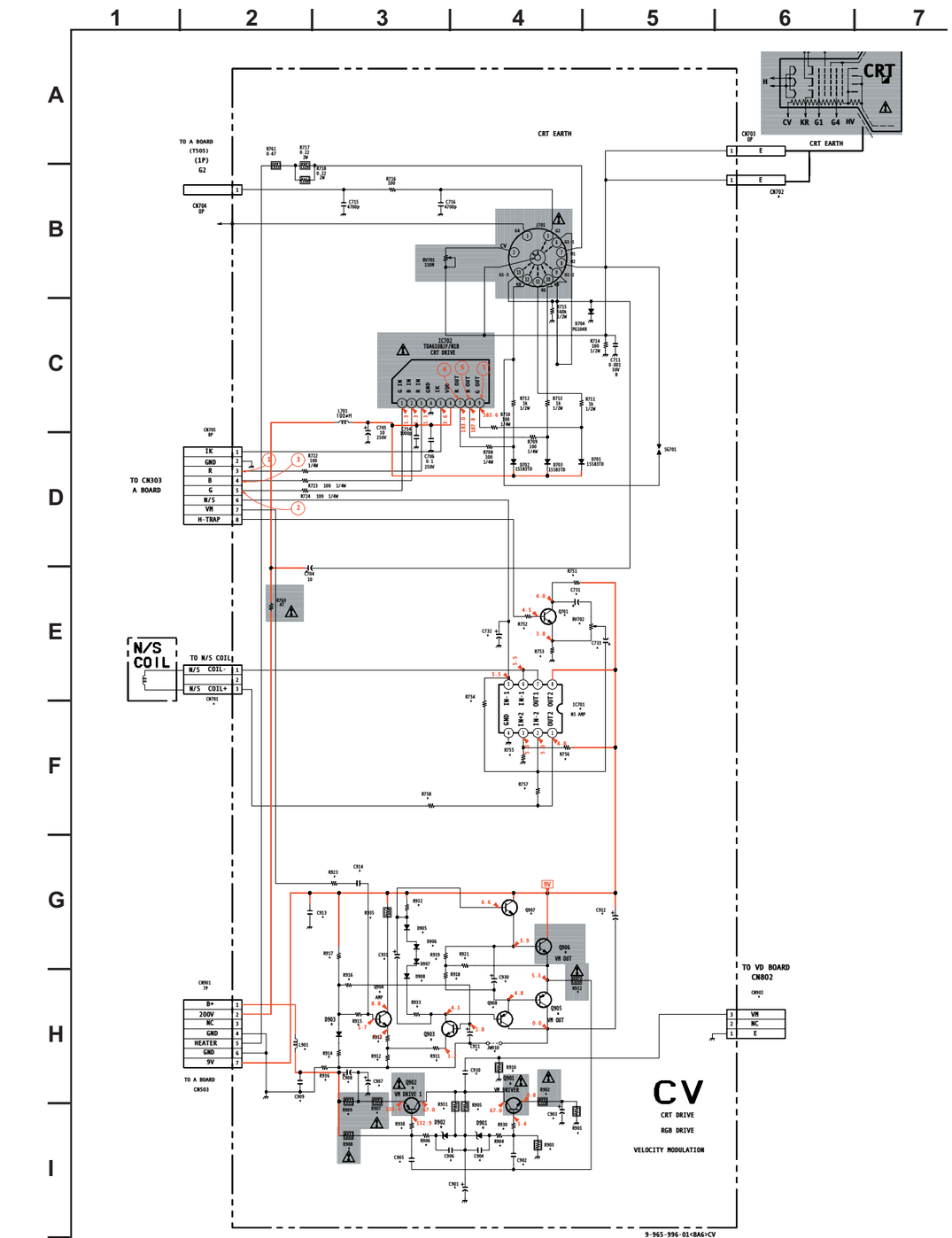
CONDUCTOR SIDE



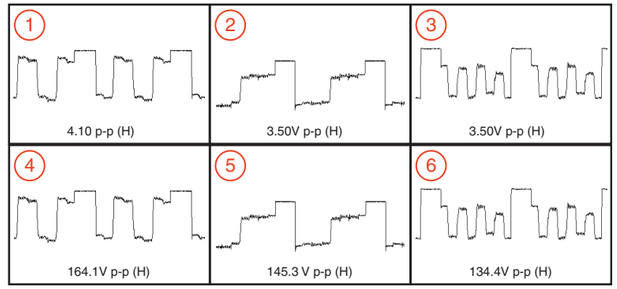
A BOARD LOCATOR LIST
CONDUCTOR SIDE

DIODE		DIODE		DIODE		IC		TRANSISTORS	
D002	G-5	D505	D-5	D601	E-11	IC003	F-5	Q400	H-12
D004	I-4	D506	D-5	D602	C-12	IC302	H-6	Q401	H-12
D005	J-11	D508	B-1	D605	B-8	IC303	H-2	Q501	A-7
D006	J-11	D512	F-2	D606	B-9	IC401	A-13	Q502	B-5
D020	H-7	D513	F-2	D607	A-9	IC404	I-2	Q503	G-8
D021	H-7	D515	E-7	D608	A-11	IC405	I-5	Q504	H-8
D044	I-3	D516	F-9	D609	B-9	IC406	J-2	Q505	F-7
D045	I-4	D518	F-8	D610	A-11	IC501	F-8	Q506	G-8
D052	G-5	D519	E-3	D611	B-10	IC561	F-6	Q507	C-1
D101	I-4	D520	F-8	D612	B-9	IC565	F-6	Q508	D-4
D250	H-6	D521	G-8	D613	D-9	IC601	A-10	Q509	E-5
D308	H-2	D522	F-8	D614	E-9	IC602	E-8	Q511	F-7
D309	G-1	D525	G-9	D616	E-10	IC603	J-10	Q512	D-8
D311	G-2	D526	F-8	D617	E-10	IC604	I-10	Q515	F-2
D330	I-2	D530	D-3	D618	I-10	IC605	I-11	Q530	G-9
D331	H-2	D531	D-2	D619	H-9	TRANSISTORS		Q531	G-9
D332	H-2	D534	C-4	D620	F-10	Q002	H-7	Q532	G-9
D351	H-8	D535	E-8	D621	I-11	Q004	I-4	Q533	C-2
D360	G-3	D536	G-8	D623	B-12	Q005	H-5	Q561	H-9
D390	D-2	D550	G-7	D624	B-12	Q006	I-4	Q562	H-9
D400	H-12	D551	A-5	D625	A-12	Q008	I-4	Q564	H-9
D401	F-1	D561	F-7	D626	B-9	Q009	I-11	Q582	C-1
D402	G-2	D580	F-9	D627	A-12	Q301	H-8	Q583	F-1
D403	H-1	D588	H-9	D630	G-10	Q303	F-3	Q601	F-11
D404	I-1	D589	G-9	D631	D-9	Q305	F-3	Q604	A-12
D407	I-6	D590	H-9	D632	E-9	Q306	H-8	Q605	D-9
D500	C-5	D591	F-1	D633	A-9	Q307	I-8	Q606	D-8
D501	H-4	D592	F-1	D3509	C-1	Q310	F-3	Q607	H-9
D502	G-8	D593	D-7	IC		Q316	F-4	Q608	I-9
D503	C-5	D594	F-7	IC001	G-4	Q390	C-1	Q609	F-9
D504	C-6	D595	E-7	IC002	I-3	Q391	C-1	Q3300	I-7

CV BOARD SCHEMATIC DIAGRAM



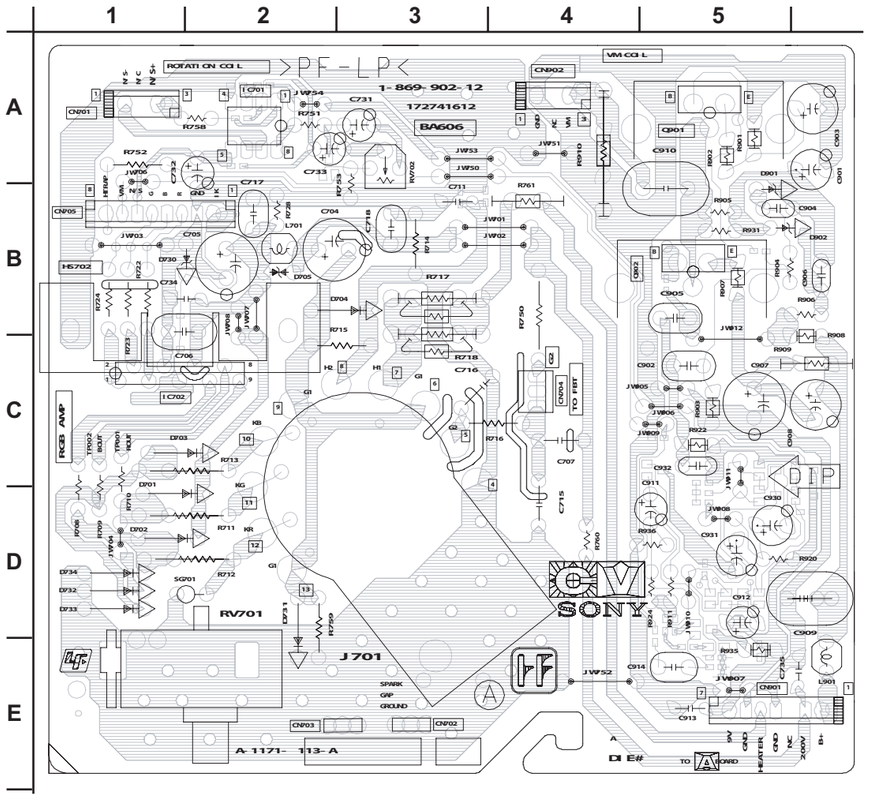
CV BOARD WAVEFORMS



CV

[CRT DRIVE, RGB DRIVE, VELOCITY MODULATION]

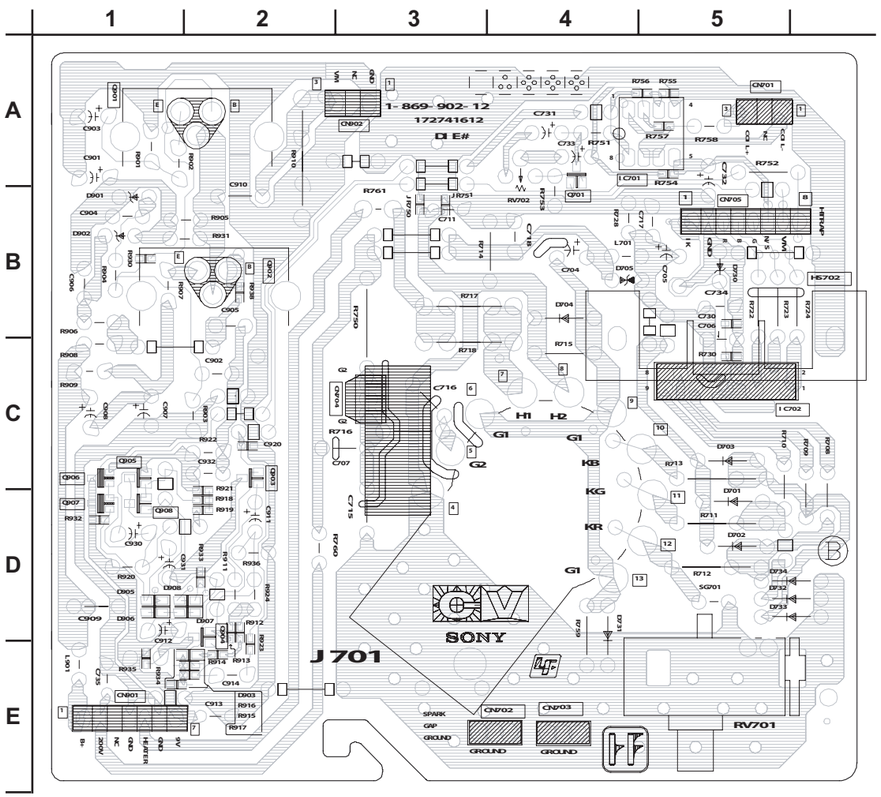
COMPONENT SIDE



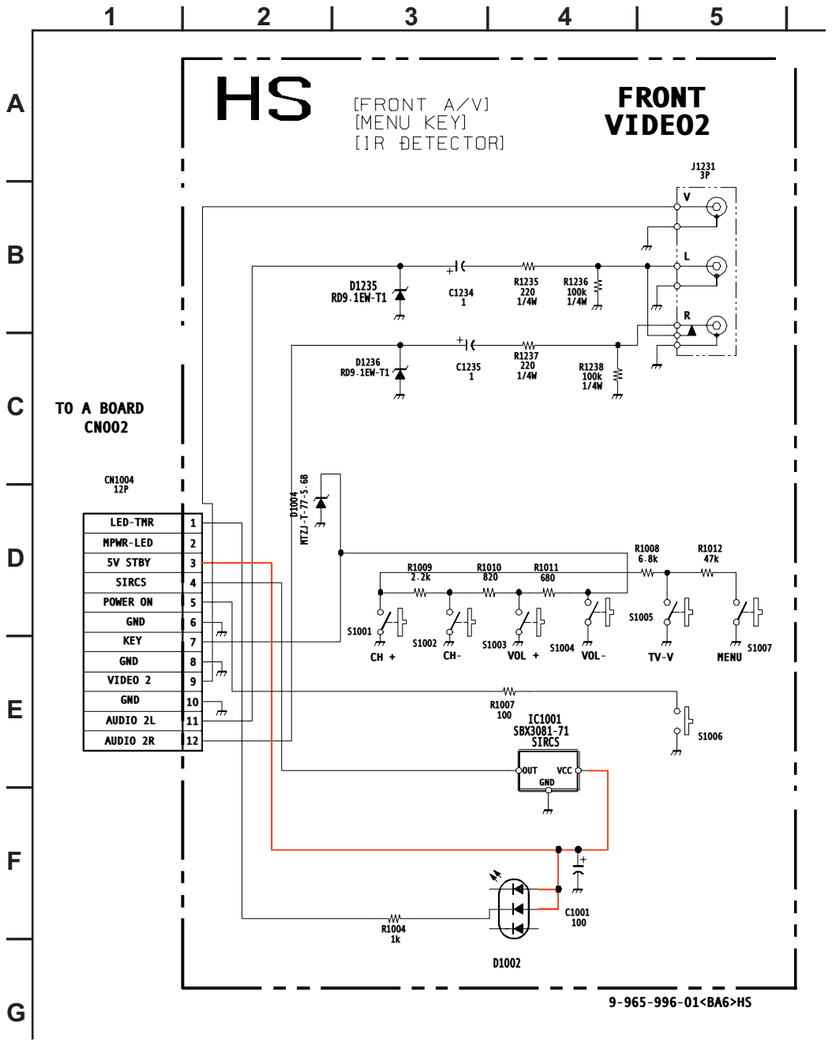
CV

[CRT DRIVE, RGB DRIVE, VELOCITY MODULATION]

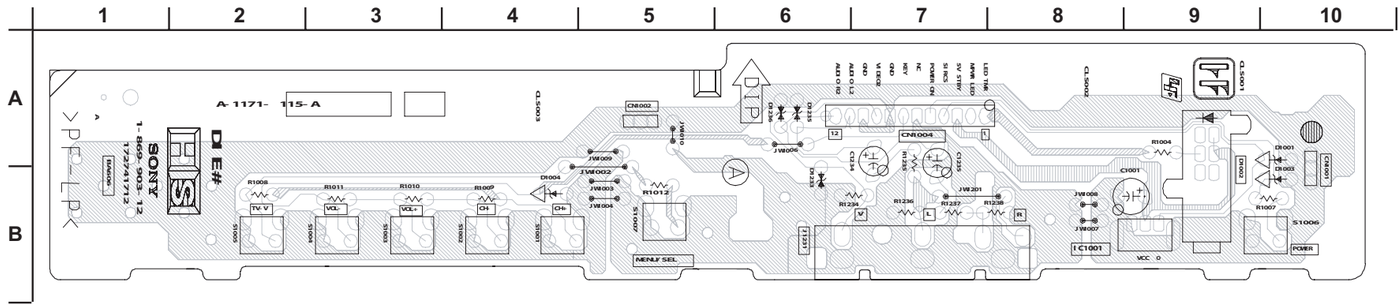
CONDUCTOR SIDE



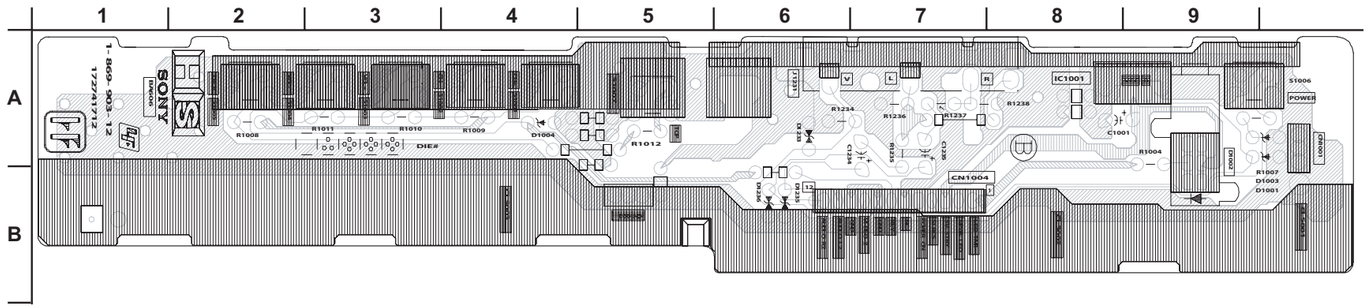
HS BOARD SCHEMATIC DIAGRAM



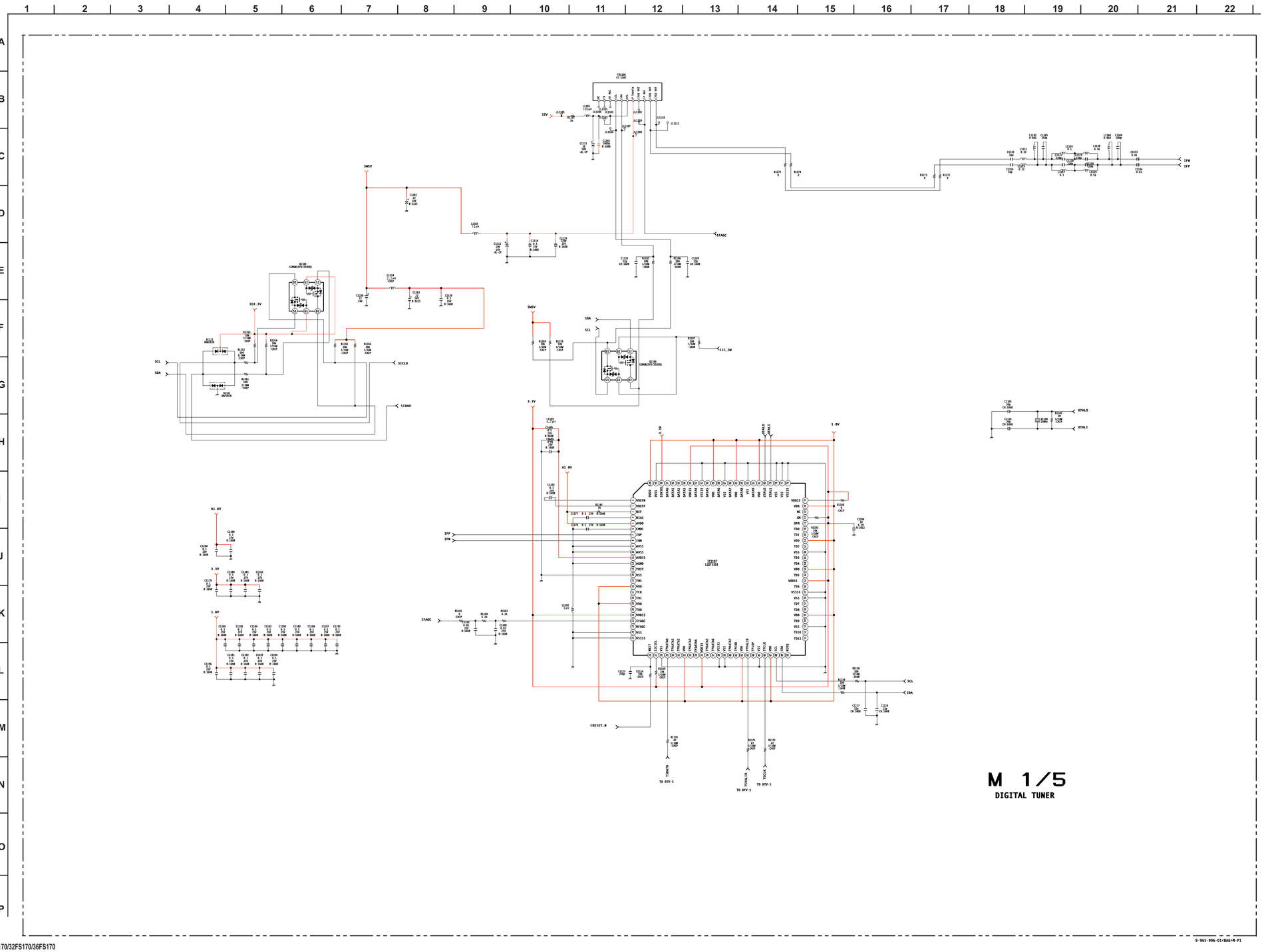
HS [FRONT A/V, MENU KEY, IR DETECTOR] COMPONENT SIDE



HS [FRONT A/V, MENU KEY, IR DETECTOR] CONDUCTOR SIDE



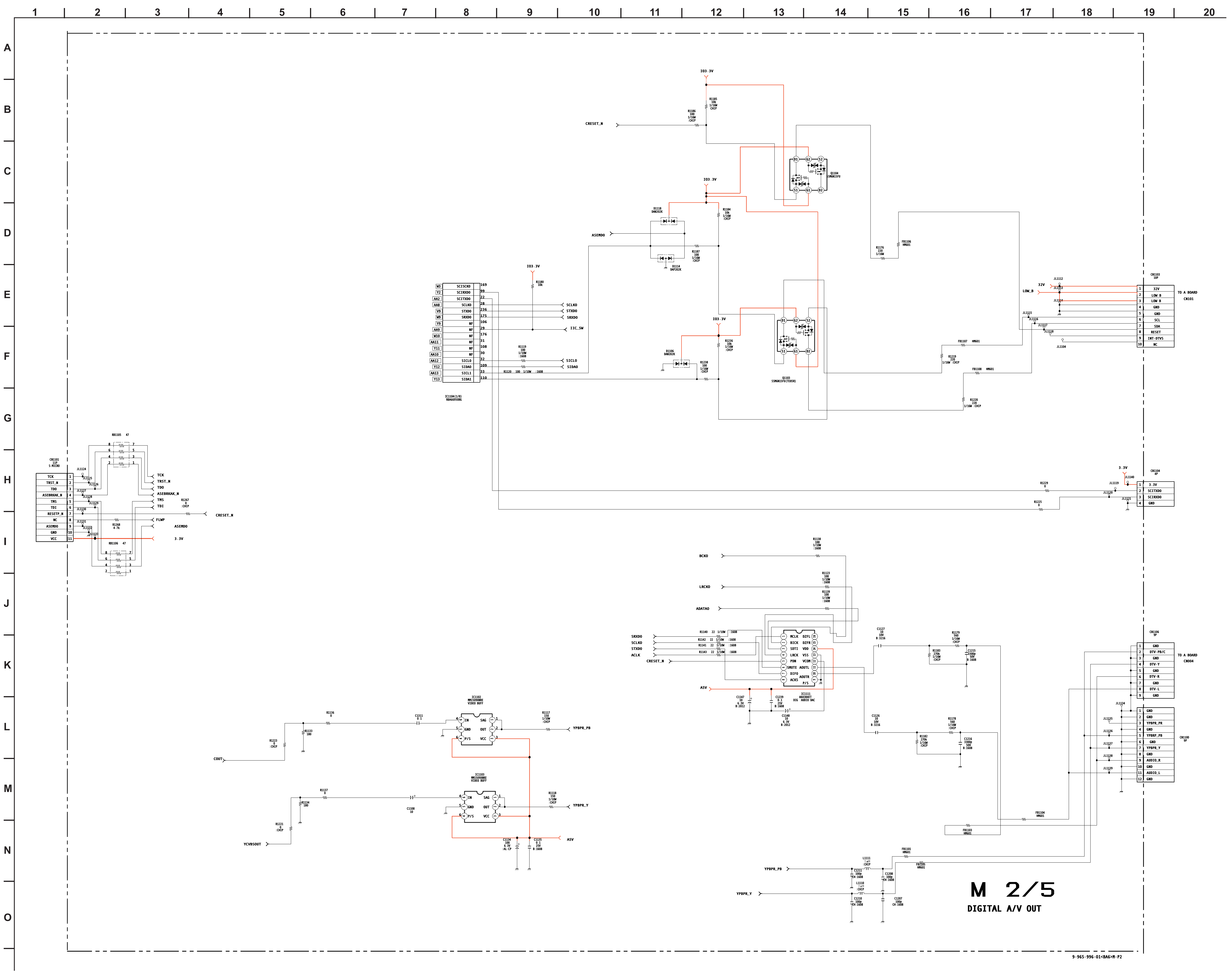
M BOARD SCHEMATIC DIAGRAM (1 OF 5)



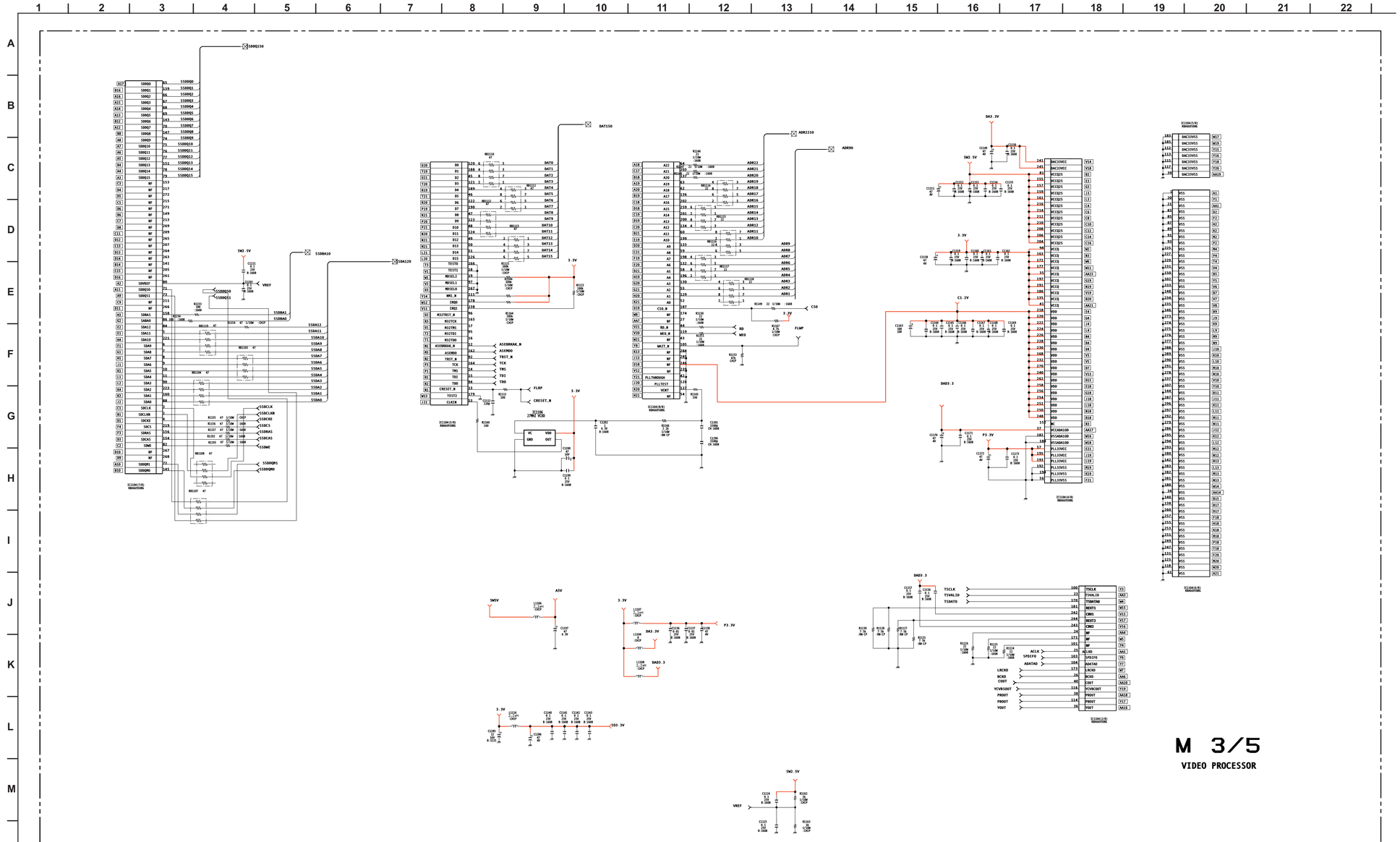
M 1/5

DIGITAL TUNER

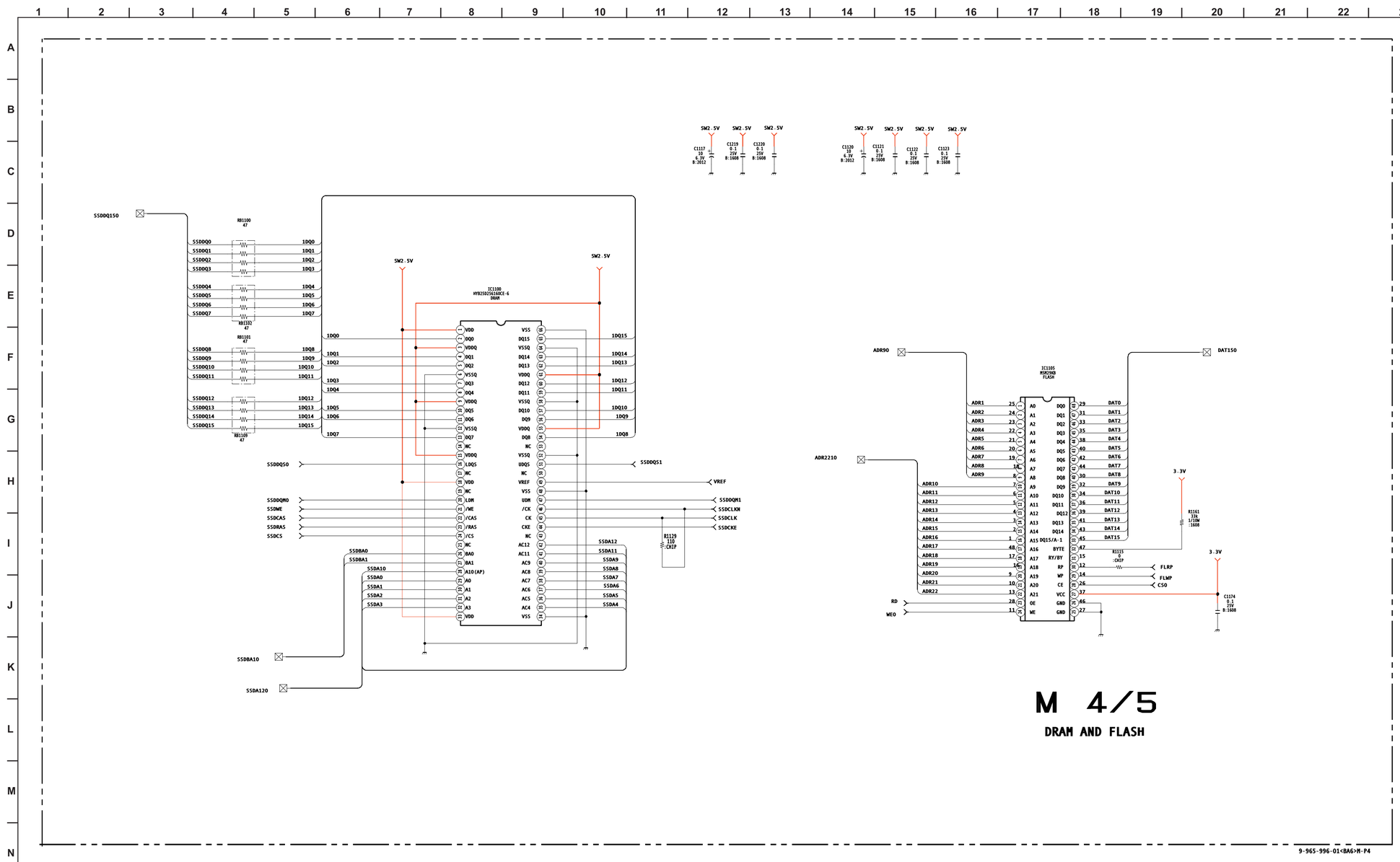
M BOARD SCHEMATIC DIAGRAM (2 OF 5)


M 2/5
DIGITAL A/V OUT
IC1104(1/8) R8A66950BG
IC1111 AK4384ET DIG AUDIO DAC
IC1102 MM1509XNRE VIDEO BUFF
IC1103 MM1509XNRE VIDEO BUFF
Q1104 SSM6N15FU
Q1103 SSM6N15FU(TE85R)
CN1101 11P S:MICRO
CN1103 10P
TO A BOARD CN101
CN1104 4P
CN1106 9P
TO A BOARD CN004
CN1100 9P
9-965-996-01<BA6>M-P2

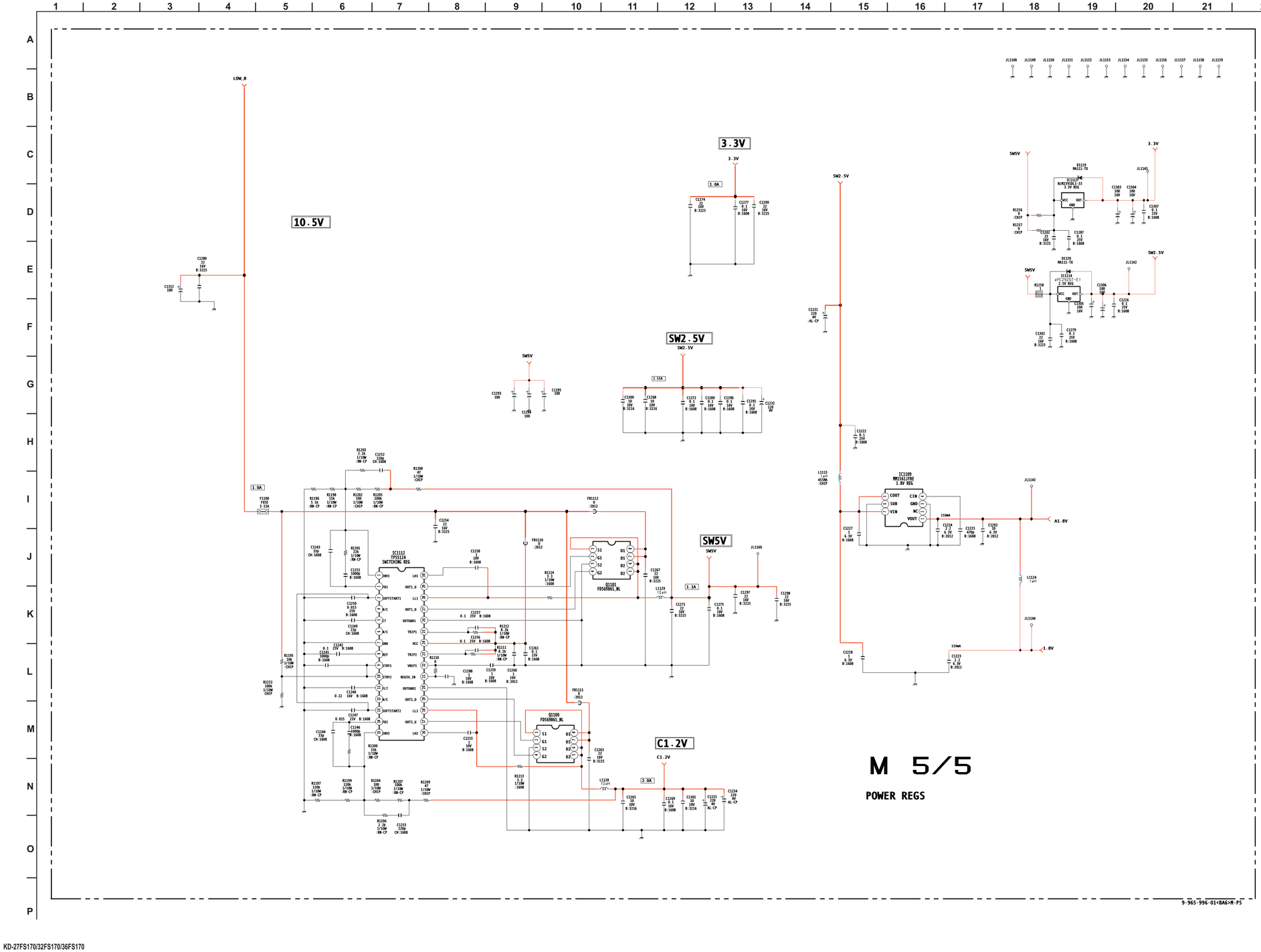
M BOARD SCHEMATIC DIAGRAM (3 OF 5)



M BOARD SCHEMATIC DIAGRAM (4 OF 5)

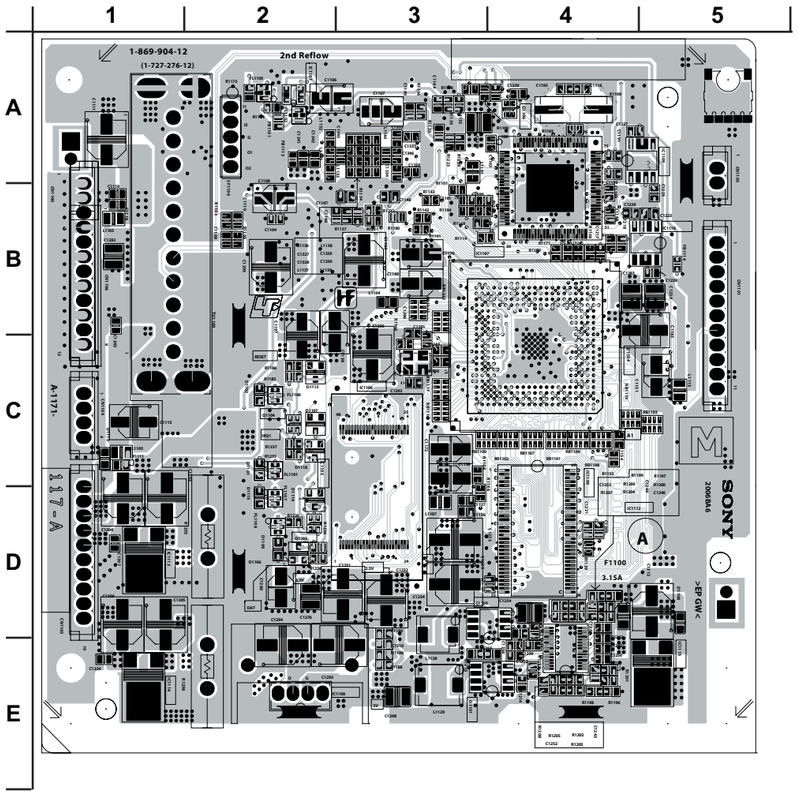


M BOARD SCHEMATIC DIAGRAM (5 OF 5)



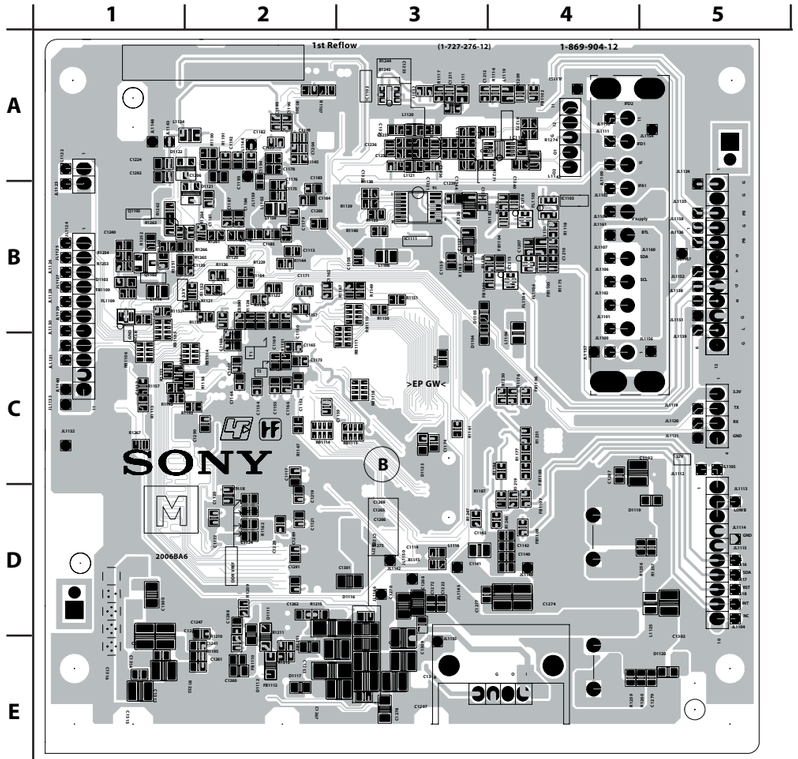
M [DIGITAL TUNER, DIGITAL A/V OUT, VIDEO PROCESSOR, DRAM AND FLASH, POWER REGS]

COMPONENT SIDE

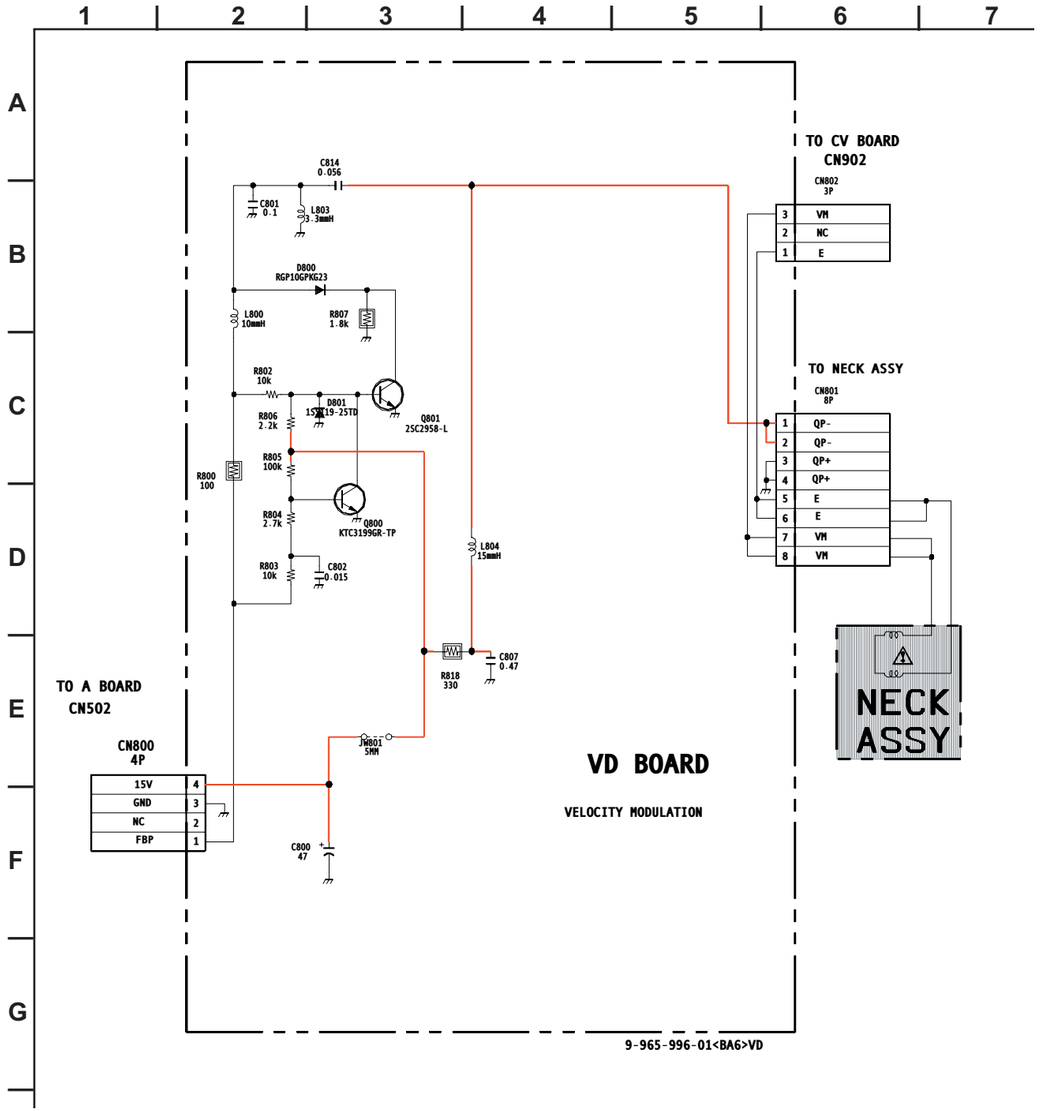


M [DIGITAL TUNER, DIGITAL A/V OUT, VIDEO PROCESSOR, DRAM AND FLASH, POWER REGS]

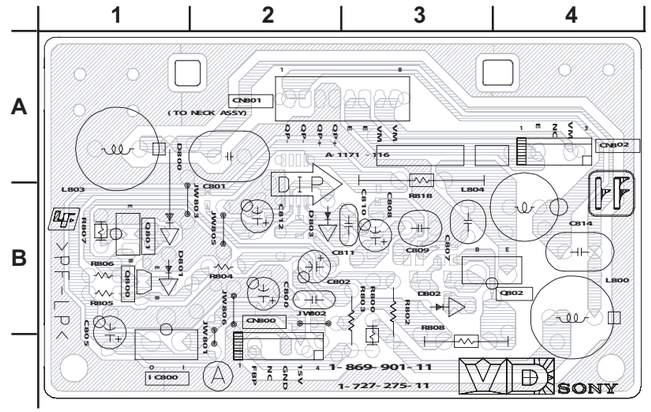
CONDUCTOR SIDE



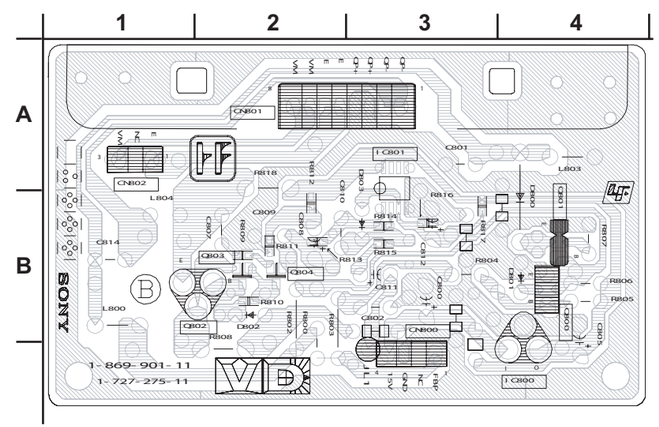
VD BOARD SCHEMATIC DIAGRAM
(KD-32FS170/36FS170 ONLY)



VD [VELOCITY MODULATION]
COMPONENT SIDE

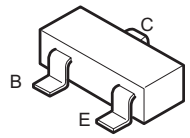


VD [VELOCITY MODULATION]
CONDUCTOR SIDE

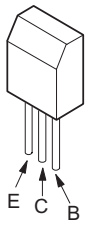


5-4. SEMICONDUCTORS

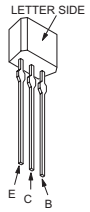
2SB709A-QRS-TX
2SD601A-QRS-TX



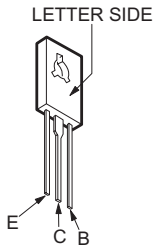
2SB734-T-34
2SC3209LK-TP



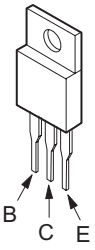
2SA1309A-QRSTA
2SC3311A-QRSTA
2SD2144S-TP-UVW



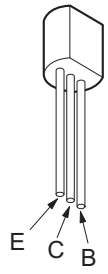
2SC3840K



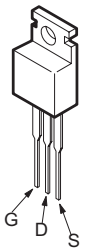
2SA1837



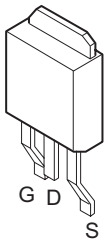
2SA1091O-TPE2



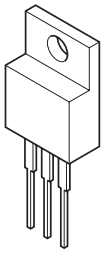
IRF614



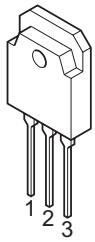
2SK2663



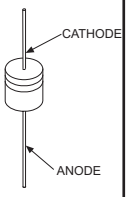
2SC4793



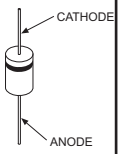
2SD2578-YB



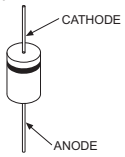
ERA38-06TP1
ERA82-004TP5
1SS133T-77
D1NS0R-TA
MTZJ-T-77-12C
MTZJ-T-77-15B
MTZJ-T-77-33B
MTZJ-T-77-39



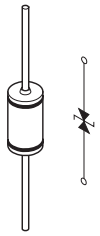
RU-1P
ERC06-15S
EGP20DPKG23
MTZJ-T-77-5.1C
MTZJ-T-77-5.6C
MTZJ-T-77-7.5A
MTZJ-T-77-10B
MTZJ-T-77-30D
RGP10-GPKG3
RGP02-17PKG23
RGP15GPKG23



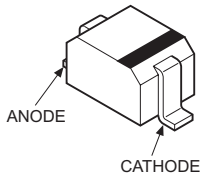
ERB44-06TP1
1SS83TD
GP08DPKG23
RGP10GPKG23
RU4AM-T3



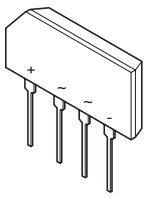
RD9.1EW-T1



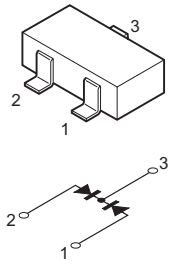
MA111-TX
UDZ-TE-17.5.1B
UDZ-TE-17.91B



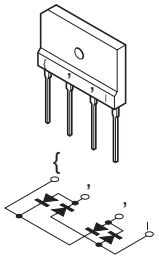
D2SB60A-F04



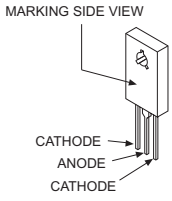
DAP202K-T-146



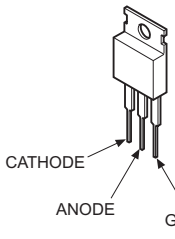
D4SB60L-F



D5LC20U



TF541M



SECTION 6: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

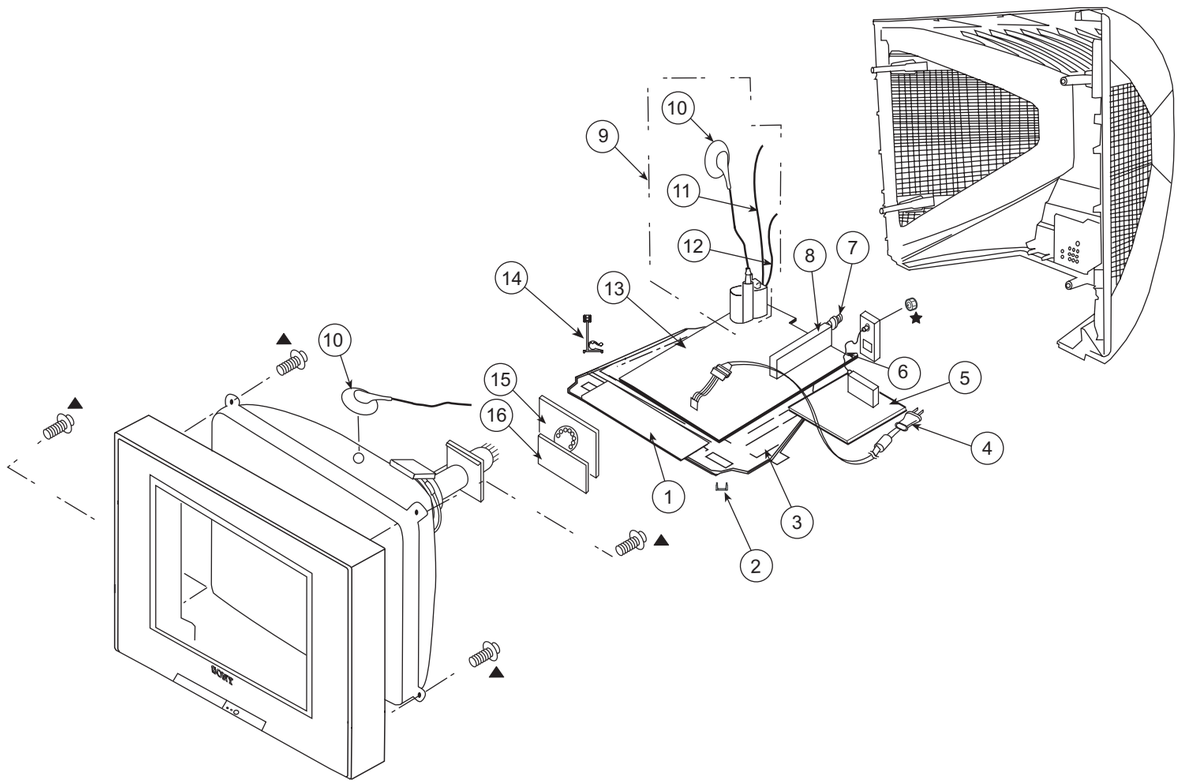
*** Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.**

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

6-1. CHASSIS

▲	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER
★	3-682-691-00	NUT, WASHER HEXAGON



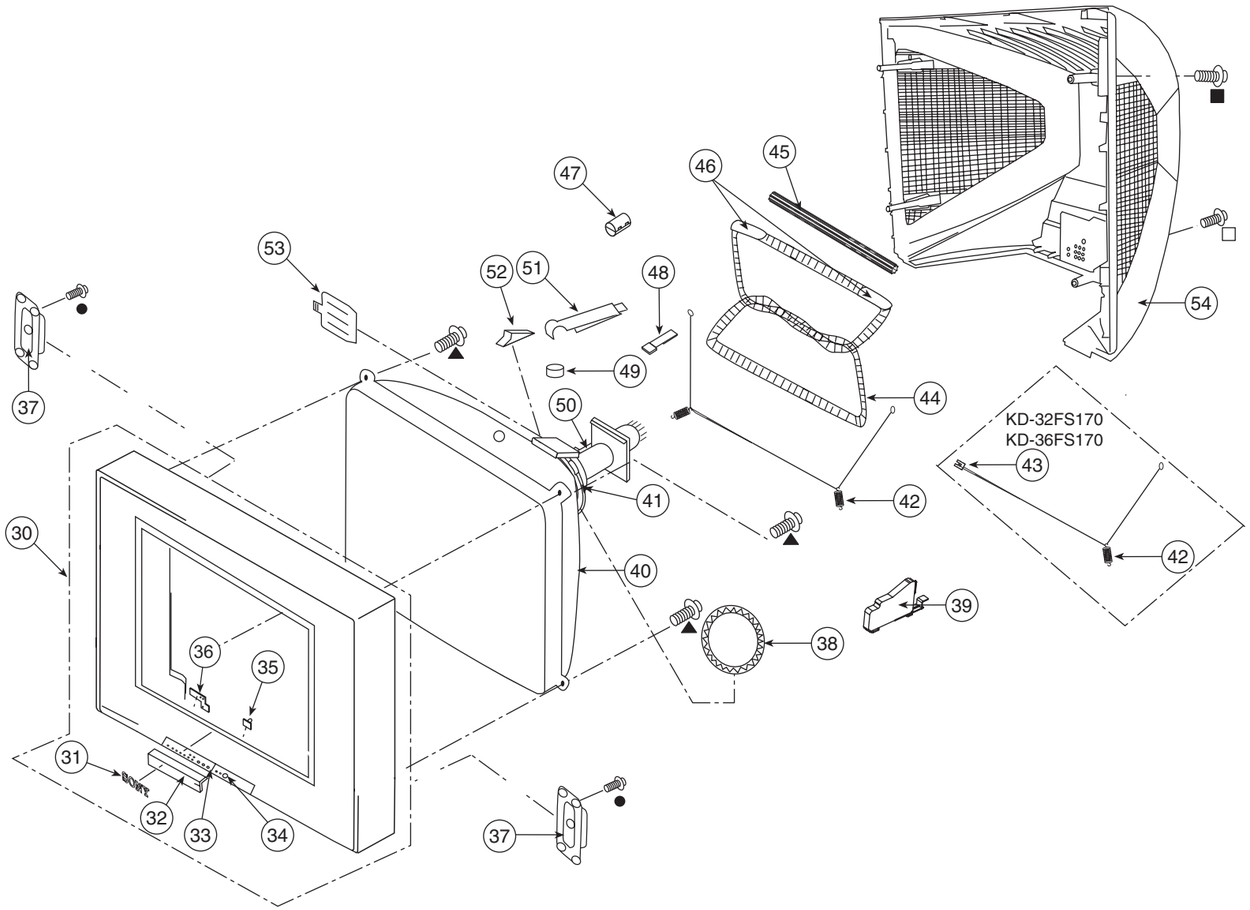
REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
1	A-1171-115-A	HS BOARD, MOUNTED	
* 2	4-076-951-01	HINGE, PWB	
* 3	4-089-054-61	BOARD, BOTTOM	
* 3	4-089-054-71	BOARD, BOTTOM	
⚠ 4	1-832-394-11	AC CORD WITH CONNECTOR	
5	A-1171-117-A	M BOARD, MOUNTED	
* 6	1-832-393-11	P-F CABLE	
⚠ 7	1-766-374-11	PLUG, F-PIN	
⚠ 8	8-598-593-70	TUNER, FSS BTF-WA421	
⚠ 9	1-453-480-11	FBT ASSY NX-4910//X4A4 (KD-27FS170 ONLY)	[10-12]
⚠ 9	1-453-481-11	FBT ASSY NX-4900//X4J4 (KD-32FS170/36FS170 ONLY)	[10-12]
⚠ 10	1-417-665-41	HIGH-VOLTAGE CAP ASSY (KD-32FS170/36FS170 ONLY)	
⚠ 10	1-417-665-11	HIGH-VOLTAGE CAP ASSY (KD-27FS170 ONLY)	
⚠ 11	1-900-805-22	CONNECTOR ASSY, G2 HV	
⚠ 12	1-900-800-82	WIRE ASSY, FOCUS	
13	A-1172-012-A	A BOARD, COMPLETE (KD-27FS170 ONLY)	
		The high-voltage leads associated with the FBT on this A board are not included and must be ordered separately. (See 10-12)	
13	A-1172-013-A	A BOARD, COMPLETE (KD-32FS170/36FS170 ONLY)	
		The high-voltage leads associated with the FBT on this A board are not included and must be ordered separately. (See 10-12)	
14	4-089-469-11	STANDOFF, HV (KD-36FS170 ONLY)	
15	A-1171-113-A	CV (COM) BOARD, MOUNTED	
15	A-1171-119-A	CV (VAR) BOARD, MOUNTED (KD-32FS170/36FS170 ONLY)	
16	A-1171-116-A	VD BOARD, MOUNTED (KD-32FS170/36FS170 ONLY)	

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

6-2. PICTURE TUBE

▲	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER
■	7-685-663-79	SCREW +BVTP 4X16 TYPE2 TT(B)
□	7-685-648-79	SCREW +BVTP 3X12 TYPE2 TT(B)
●	4-388-477-01	SCREW(3X16),TAPPING,+BV WASHER



REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
30	X-2108-755-1	BEZNET ASSY (KD-27FS170 ONLY)	[31-36]
30	X-2108-756-1	BEZNET ASSY (KD-32FS170 ONLY)	[31-36]
30	X-2108-757-1	BEZNET ASSY (KD-36FS170 ONLY)	[31-36]
31	4-046-160-31	EMBLEM, SONY NO.9	
32	4-089-056-21	DOOR	
33	4-089-016-21	LABEL, DOOR	
34	4-089-057-21	BUTTON, POWER	
35	4-089-058-01	GUIDE, LED	
* 36	4-083-303-01	SPRING, METAL	
37	1-825-206-12	LOUDSPEAKER (6X12CM)	
⚠ 38	1-452-896-11	COIL, NA ROTATION (RT-200) (KD-32FS170/36FS170 ONLY)	
39	4-089-062-11	SUPPORTER, CRT (KD-27FS170 ONLY)	
39	4-089-063-12	SUPPORTER, CRT (KD-32FS170 ONLY)	
39	4-089-064-03	SUPPORTER, CRT (KD-36FS170 ONLY)	
⚠ 40	8-735-041-05	CRT 29RSN M68LNH010X (KD-27FS170 ONLY)	
⚠ 40	8-735-066-05	CRT 34RSN(SDP) A80LPD50X (KD-32FS170 ONLY)	
⚠ 40	8-735-048-05	CRT 38RSN A90LPW80X (KD-36FS170 ONLY)	
⚠ 41	8-451-494-81	DY Y29RSA-V3 (KD-27FS170 ONLY)	
⚠ 41	8-451-499-41	DY Y34RSA-V (KD-32FS170 ONLY)	
⚠ 41	8-451-506-22	DY Y38RSA-V (KD-36FS170 ONLY)	
42	4-036-329-01	SPRING (B), TENSION (KD-27FS170 ONLY)	
42	4-082-641-01	SPRING, 45MM (KD-32FS170/36FS170 ONLY)	
43	4-082-640-01	HOOK, GROUND WIRE (KD-32FS170/36FS170 ONLY)	
⚠ 44	1-419-156-22	COIL, DEGAUSSING (KD-27FS170 ONLY)	
⚠ 44	1-428-988-31	DEGAUSSING COIL (32 INCH 120V) (KD-32FS170 ONLY)	
⚠ 44	1-456-011-21	COIL, DEGAUSSING (KD-36FS170 ONLY)	
45	4-100-433-01	TUBE, DGC (A) (KD-32FS170 ONLY)	
45	4-098-344-01	TUBE, DGC (B) (KD-36FS170 ONLY)	
* 46	4-074-576-01	CUSHION, DGC	
47	1-500-586-11	FILTER, CLAMP (FERRITE CORE)	
48	4-083-414-01	PIECE A(110), CONV CORRECT (KD-27FS170/32FS170 ONLY)	
48	4-085-128-01	PIECE A (100), CONV. CORRECT (KD-36FS170 ONLY)	
49	1-452-885-11	MAGNET, LANDING	
⚠ 50	8-453-020-21	NECK ASSEMBLY NA327-M2 (KD-32FS170/36FS170 ONLY)	
* 51	4-062-970-12	CLIP (29RSN), DGC (KD-27FS170 ONLY)	
51	4-102-284-11	CLIP, DGC (KD-32FS170 ONLY)	
51	4-065-895-21	HOLDER, DGC (KD-36FS170 ONLY)	
52	4-046-600-11	SPACER, DY	
53	4-081-170-01	PLATE, TLH CORRECTION (KD-27FS170/32FS170 ONLY)	
53	2-163-920-01	PLATE, TLH CORRECTION (KD-36FS170 ONLY)	
54	2-671-472-01	COVER, REAR (KD-27FS170 ONLY)	
54	2-671-474-01	COVER, REAR (KD-32FS170 ONLY)	
54	4-089-052-71	COVER, REAR (KD-36FS170 ONLY)	

SECTION 7: ELECTRICAL PARTS LIST

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components in this manual identified by the following symbol: ⋈ indicate parts that have been carefully factory-selected to satisfy regulations regarding X-ray radiation for each set.

Should replacement be required for one of these components, replace only with the value originally used.

*** Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.**

RESISTORS
- **All resistors are in ohms**
- **F : nonflammable**
- **All variable and adjustable resistors have characteristic curve B, unless otherwise noted.**

When ordering parts by reference number, please include the board name.

A

A-1172-012-A A BOARD, COMPLETE (KD-27FS170 ONLY)
A-1172-013-A A BOARD, COMPLETE (KD-32FS170/36FS170 ONLY)
4-382-854-11 SCREW (M3X10), P, SW (+)

The high-voltage leads associated with the FBT on these A boards are not included and must be ordered separately. Order the following leads when requesting these A Boards:

⚠	1-417-665-11	HIGH-VOLTAGE CAP ASSY (KD-27FS170 ONLY)
⚠	1-417-665-41	HIGH-VOLTAGE CAP ASSY (KD-32FS170/36FS170 ONLY)
⚠	1-900-800-82	WIRE ASSY, FOCUS
⚠	1-900-805-22	CONNECTOR ASSY, G2 HV LEAD

CAPACITOR

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C001	1-128-934-91	CERAMIC CHIP	0.33µF	20%	10V
C002	1-128-934-91	CERAMIC CHIP	0.33µF	20%	10V
C003	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C004	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C005	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C006	1-126-767-11	ELECT	1000µF	20%	16V
C007	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C008	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C009	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C010	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C011	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C012	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C014	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C016	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C017	1-126-935-11	ELECT	470µF	20%	16V
C018	1-126-964-11	ELECT	10µF	20%	50V
C020	1-126-933-11	ELECT	100µF	20%	16V
C022	1-126-964-11	ELECT	10µF	20%	50V
C023	1-126-935-11	ELECT	470µF	20%	16V
C024	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C025	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C030	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C031	1-126-964-11	ELECT	10µF	20%	50V
C041	1-126-964-11	ELECT	10µF	20%	50V
C047	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C048	1-104-665-11	ELECT	100µF	20%	25V
C051	1-162-926-11	CERAMIC CHIP	82pF	5%	50V
C055	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C056	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C057	1-126-964-11	ELECT	10µF	20%	50V
C080	1-126-933-11	ELECT	100µF	20%	16V
C091	1-126-947-11	ELECT	47µF	20%	35V
C094	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C095	1-126-947-11	ELECT	47µF	20%	35V
C115	1-164-739-11	CERAMIC CHIP	560pF	5%	50V
C116	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C301	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C304	1-126-964-11	ELECT	10µF	20%	50V
C313	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C325	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C326	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C330	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C337	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C348	1-126-933-11	ELECT	100µF	20%	16V
C351	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C355	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C360	1-126-933-11	ELECT	100µF	20%	16V
C361	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C364	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C375	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C380	1-126-947-11	ELECT	47µF	20%	35V
C385	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C389	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
C390	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C391	1-126-947-11	ELECT	47µF	20%	35V
C392	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C393	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C396	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C397	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C398	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C399	1-126-964-11	ELECT	10µF	20%	50V
C401	1-126-942-61	ELECT	1000µF	20%	25V
C402	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C403	1-104-665-11	ELECT	100µF	20%	25V
C404	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C405	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C406	1-126-965-91	ELECT	22µF	20%	50V
C407	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C409	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C410	1-126-947-11	ELECT	47µF	20%	35V
C412	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C414	1-126-947-11	ELECT	47µF	20%	35V
C415	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C416	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C417	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C419	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C420	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C422	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C423	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C424	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C425	1-126-964-11	ELECT	10µF	20%	50V
C426	1-126-964-11	ELECT	10µF	20%	50V
C429	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C430	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C431	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C432	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C433	1-126-947-11	ELECT	47µF	20%	35V
C434	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C435	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C436	1-126-947-11	ELECT	47µF	20%	35V
C437	1-126-942-61	ELECT	1000µF	20%	25V
C438	1-126-942-61	ELECT	1000µF	20%	25V
C439	1-126-942-61	ELECT	1000µF	20%	25V
C440	1-126-942-61	ELECT	1000µF	20%	25V
C501	1-126-934-11	ELECT	220µF	20%	16V
C502	1-126-959-11	ELECT	0.47µF	20%	50V
C503	1-164-315-11	CERAMIC CHIP	470pF	5%	50V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C504	1-102-228-00	CERAMIC	470pF	10%	500V
C505	1-102-228-00	CERAMIC	470pF	10%	500V
C506	1-106-383-00	MYLAR	0.047µF	10%	200V
⚠ C507	1-117-214-11	CERAMIC	0.001µF	10%	2KV
C508	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C509	1-162-116-00	CERAMIC	680pF	10%	2KV
C510	1-137-150-11	FILM	0.01µF	5%	100V
⚠ C511	1-127-717-21	FILM	19000pF	3%	1.2KV
	(KD-27FS170 ONLY)				
⚠ C511	1-117-653-11	FILM	24000pF	3%	1.2KV
	(KD-32FS170/36FS170 ONLY)				
C512	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
⚠ C513	1-130-118-61	FILM	0.051µF	5%	400V
	(KD-27FS170 ONLY)				
⚠ C513	1-129-722-00	FILM	0.047µF	5%	630V
	(KD-32FS170/36FS170 ONLY)				
C514	1-107-385-11	MYLAR	0.056µF	5%	200V
	(KD-32FS170/36FS170 ONLY)				
C515	1-117-813-11	FILM	0.75µF	5%	250V
C516	1-115-522-11	FILM	1µF	5%	250V
	(KD-27FS170 ONLY)				
C516	1-117-675-11	FILM	2.2µF	5%	250V
	(KD-32FS170/36FS170 ONLY)				
C517	1-107-649-11	ELECT	2.2µF	20%	250V
C518	1-106-383-00	MYLAR	0.047µF	10%	200V
	(KD-27FS170 ONLY)				
C518	1-106-387-00	MYLAR	0.068µF	10%	200V
	(KD-32FS170/36FS170 ONLY)				
C519	1-102-244-00	CERAMIC	220pF	10%	500V
C520	1-164-735-11	CERAMIC	0.0015µF	10%	500V
C522	1-126-960-11	ELECT	1µF	20%	50V
C523	1-104-987-11	MYLAR	0.001µF	5%	200V
C524	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C526	1-107-662-11	ELECT	22µF	20%	350V
C527	1-162-116-00	CERAMIC	680pF	10%	2KV
C528	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C529	1-104-662-91	ELECT	22µF	20%	25V
C530	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C531	1-107-635-11	ELECT	4.7µF	20%	160V
C532	1-126-965-91	ELECT	22µF	20%	50V
C534	1-126-967-11	ELECT	47µF	20%	50V
C535	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C536	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C537	1-126-941-11	ELECT	470µF	20%	25V

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
C539	1-126-941-11	ELECT	470µF	20%	25V
C540	1-131-867-51	ELECT	100µF		160V
C541	1-107-645-11	ELECT	22µF	20%	200V
C543	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C545	1-106-387-00	MYLAR	0.068µF	10%	200V
C546	1-104-987-11	MYLAR	0.001µF	5%	200V
	(KD-32FS170/36FS170 ONLY)				
C547	1-104-987-11	MYLAR	0.001µF	5%	200V
	(KD-32FS170/36FS170 ONLY)				
C552	1-126-964-11	ELECT	10µF	20%	50V
C561	1-126-967-11	ELECT	47µF	20%	50V
C563	1-104-666-11	ELECT	220µF	20%	25V
C565	1-126-969-11	ELECT	220µF	20%	50V
C568	1-137-190-91	FILM	0.22µF	5%	50V
C570	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C571	1-126-933-11	ELECT	100µF	20%	16V
C575	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C576	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C577	1-115-414-11	CERAMIC CHIP	820pF	5%	25V
C579	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C588	1-130-491-00	MYLAR	0.047µF	5%	50V
C590	1-126-964-11	ELECT	10µF	20%	50V
C594	1-216-833-11	METAL CHIP	10K	5%	1/10W
C595	1-126-933-11	ELECT	100µF	20%	16V
C596	1-126-964-11	ELECT	10µF	20%	50V
C597	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C601	1-165-529-31	MYLAR	0.22µF	10	0V
C602	1-165-529-31	MYLAR	0.22µF	10	0V
C605	1-165-529-31	MYLAR	0.22µF	10	0V
C606	1-119-894-51	CERAMIC	2200pF	20%	250V
C607	1-119-894-51	CERAMIC	2200pF	20%	250V
C612	1-126-964-11	ELECT	10µF	20%	50V
C613	1-104-332-11	CERAMIC	470pF	10%	2KV
C614	1-162-116-00	CERAMIC	680pF	10%	2KV
C616	1-117-893-11	ELECT	470µF	20%	250V
	(KD-27FS170 ONLY)				
C616	1-117-894-11	ELECT	560µF	20%	250V
	(KD-32FS170/36FS170 ONLY)				
C618	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C619	1-126-960-11	ELECT	1µF	20%	50V
C620	1-136-497-81	FILM	0.1µF	5%	50V
C623	1-126-965-91	ELECT	22µF	20%	50V
C625	1-162-965-11	CERAMIC CHIP	0.0015µF	10%	50V
C626	1-102-228-00	CERAMIC	470pF	10%	500V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C627	1-102-228-00	CERAMIC	470pF	10%	500V
C630	1-126-955-11	ELECT	4700µF	20%	35V
C631	1-126-955-11	ELECT	4700µF	20%	35V
C632	1-126-936-11	ELECT	3300µF	20%	16V
C633	1-126-971-11	ELECT	470µF	20%	50V
C634	1-125-772-91	CERAMIC	1500pF	10%	2KV
C635	1-131-867-51	ELECT	100µF		160V
C639	1-126-943-11	ELECT	2200µF	20%	25V
C640	1-126-943-11	ELECT	2200µF	20%	25V
C641	1-126-947-11	ELECT	47µF	20%	35V
C643	1-104-665-11	ELECT	100µF	20%	25V
C645	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C646	1-126-947-11	ELECT	47µF	20%	35V
C647	1-126-967-11	ELECT	47µF	20%	50V
C648	1-126-952-11	ELECT	1000µF	20%	35V
C649	1-126-952-11	ELECT	1000µF	20%	35V
C650	1-104-665-11	ELECT	100µF	20%	25V
C651	1-102-228-00	CERAMIC	470pF	10%	500V
C652	1-126-937-11	ELECT	4700µF	20%	16V
C701	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C702	1-126-947-11	ELECT	47µF	20%	35V
C3054	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C3501	1-126-964-11	ELECT	10µF	20%	50V
C3509	1-126-964-11	ELECT	10µF	20%	50V
C3511	1-126-964-11	ELECT	10µF	20%	50V
C3519	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C3553	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3554	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3638	1-104-665-11	ELECT	100µF	20%	25V
C3666	1-104-665-11	ELECT	100µF	20%	25V
C3995	1-104-662-91	ELECT	22µF	20%	25V

CONNECTOR

*	CN003	1-564-515-11	PLUG, CONNECTOR	12P
*	CN101	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)	10P
*	CN102	1-560-124-00	PLUG, CONNECTOR (2.5MM)	4P
*	CN301	1-564-511-11	PLUG, CONNECTOR	8P
*	CN401	1-564-507-11	PLUG, CONNECTOR	4P
*	CN501	1-580-798-11	CONNECTOR PIN (DY)	6P
*	CN503	1-564-510-11	PLUG, CONNECTOR	7P
*	CN601	1-573-963-11	PIN, CONNECTOR (PC BOARD)	3P
*⚠	CN602	1-580-843-11	PIN, CONNECTOR (POWER)	
	CN612	1-695-915-11	TAB (CONTACT)	

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REF. NO.	PART NO.	DESCRIPTION	VALUES
	DIODE		
D002	8-719-069-55	DIODE	UDZSTE-175.6B
D004	8-719-069-56	DIODE	UDZSTE-176.2B
D005	8-719-982-96	DIODE	MTZJ-T-77-2.2A
D006	8-719-404-50	DIODE	MA111-TX
D020	8-719-404-50	DIODE	MA111-TX
D021	8-719-404-50	DIODE	MA111-TX
D044	8-719-069-55	DIODE	UDZSTE-175.6B
D045	8-719-069-55	DIODE	UDZSTE-175.6B
⚠ D052	8-719-069-55	DIODE	UDZSTE-175.6B
D101	8-719-069-56	DIODE	UDZSTE-176.2B
D250	1-803-974-21	VARISTOR, CHIP (1608)	
D308	8-719-069-60	DIODE	UDZSTE-179.1B
D309	8-719-069-60	DIODE	UDZSTE-179.1B
D311	8-719-069-60	DIODE	UDZSTE-179.1B
D330	8-719-069-60	DIODE	UDZSTE-179.1B
D331	8-719-069-60	DIODE	UDZSTE-179.1B
D332	8-719-069-60	DIODE	UDZSTE-179.1B
D351	6-500-697-01	DIODE	UDZSTE-173.3B
D360	8-719-069-60	DIODE	UDZSTE-179.1B
D390	8-719-404-50	DIODE	MA111-TX
D400	8-719-070-60	DIODE	PDZ7.5B-115
D401	8-719-070-62	DIODE	PDZ9.1B-115
D402	8-719-070-62	DIODE	PDZ9.1B-115
D403	8-719-070-62	DIODE	PDZ9.1B-115
D404	8-719-070-62	DIODE	PDZ9.1B-115
D407	8-719-404-50	DIODE	MA111-TX
⚠ D500	8-719-945-80	DIODE	ERC06-15S
D501	8-719-069-55	DIODE	UDZSTE-175.6B
D502	8-719-404-50	DIODE	MA111-TX
D503	8-719-945-80	DIODE	ERC06-15S
D504	8-719-312-10	DIODE	RU4AM-T3
D505	8-719-908-03	DIODE	GP08D
D506	8-719-908-03	DIODE	GP08D
D508	8-719-404-50	DIODE	MA111-TX
D512	8-719-404-50	DIODE	MA111-TX
D513	8-719-404-50	DIODE	MA111-TX
D515	8-719-075-41	DIODE	PR1004GT
D516	8-719-404-50	DIODE	MA111-TX
D518	8-719-404-50	DIODE	MA111-TX
D519	8-719-302-43	DIODE	EL1Z
D520	8-719-404-50	DIODE	MA111-TX
D521	8-719-921-63	DIODE	MTZJ-7.5B
D522	8-719-404-50	DIODE	MA111-TX
D525	8-719-404-50	DIODE	MA111-TX
D526	8-719-404-50	DIODE	MA111-TX
D530	6-500-531-01	DIODE	PG154R
D531	6-500-531-01	DIODE	PG154R
D534	8-719-074-25	DIODE	PG104R
D535	8-719-404-50	DIODE	MA111-TX
D536	8-719-069-55	DIODE	UDZSTE-175.6B
D550	8-719-404-50	DIODE	MA111-TX
D551	8-719-069-55	DIODE	UDZSTE-175.6B
D561	8-719-075-33	DIODE	1N4003GA
D580	8-719-991-33	DIODE	1SS133T-77
D588	8-719-404-50	DIODE	MA111-TX
D589	8-719-404-50	DIODE	MA111-TX
D590	8-719-404-50	DIODE	MA111-TX
D591	8-719-404-50	DIODE	MA111-TX
D592	8-719-404-50	DIODE	MA111-TX
D593	8-719-075-41	DIODE	PR1004GT
D594	8-719-404-50	DIODE	MA111-TX
D595	8-719-982-96	DIODE	MTZJ-T-77-2.2A
D601	8-719-404-50	DIODE	MA111-TX
D602	8-719-077-77	DIODE	D3SB60F3
D605	6-500-175-01	DIODE	1E3-TB
D606	6-500-175-01	DIODE	1E3-TB
D607	8-719-109-72	DIODE	RD3.9ESB2
⚠ D608	8-719-923-86	DIODE	MTZJ-T-77-15
D609	8-719-982-19	DIODE	MTZJ-30A
⚠ D610	6-500-175-01	DIODE	1E3-TB
D611	6-500-175-01	DIODE	1E3-TB
D612	8-719-109-93	DIODE	RD6.2ESB2
D613	8-719-109-72	DIODE	RD3.9ESB2
D614	6-501-487-01	DIODE	FMU-G16S-LF681
D616	6-500-175-01	DIODE	1E3-TB
D617	8-719-075-66	DIODE	D5LC20U-4012
D618	8-719-975-76	DIODE	SB140
D619	8-719-109-89	DIODE	RD5.6ESB2
D620	8-719-982-26	DIODE	MTZJ-33B
D621	8-719-975-76	DIODE	SB140
⚠ D623	6-501-301-01	DIODE	1A5G
⚠ D624	6-501-301-01	DIODE	1A5G
D625	8-719-110-49	DIODE	RD18ESB2
⚠ D626	8-719-982-26	DIODE	MTZJ-33B
D627	8-719-108-18	THYRISTOR	5P6M
D630	8-719-054-34	DIODE	FCQ06A04

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REF. NO.	PART NO.	DESCRIPTION	VALUES	
D631	8-719-901-83	DIODE	1SS83	
D632	8-719-057-52	DIODE	EZ0150AV1	
D633	8-719-929-15	DIODE	HZS9.1NB2	
D3509	1-803-974-21	VARISTOR, CHIP (1608)		
	FUSE			
⚠ F601	1-532-506-32	FUSE	6.3A	250V
	FERRITE BEAD			
FB302	1-469-549-21	INDUCTOR	1µH	
FB501	1-412-911-11	FERRITE	0µH	
FB502	1-412-911-11	FERRITE	0µH	
FB503	1-412-911-11	FERRITE	0µH	
FB601	1-469-578-11	FERRITE	1.1µH	
FB602	1-469-578-11	FERRITE	1.1µH	
FB603	1-469-578-11	FERRITE	1.1µH	
FB604	1-469-578-11	FERRITE	1.1µH	
FB605	1-469-578-11	FERRITE	1.1µH	
FB607	1-412-911-11	FERRITE	0µH	
FB608	1-469-578-11	FERRITE	1.1µH	
	FUSE HOLDER			
⚠ FH601	1-533-223-11	FUSE HOLDER	0A	0V
⚠ FH602	1-533-223-11	FUSE HOLDER	0A	0V
	FILTER			
FL001	1-410-397-21	FERRITE	1.1µH	
	IC			
IC001	6-806-411-01	IC	M65586MK-056FP	
IC002	6-704-004-01	IC	BR24L16F-WE2	
IC003	8-759-352-91	IC	PST9143NL	
IC302	6-708-991-01	IC	AN15932AA	
IC303	8-759-353-00	IC	NJM2534M(TE2)	
⚠ IC401	6-701-104-01	IC	AN17820A	
IC404	8-759-450-93	IC	NJM2521M-TE1	
IC405	8-759-450-93	IC	NJM2521M-TE1	
IC406	6-701-105-01	IC	NJM2750M-TE2	
IC501	8-759-700-07	IC	NJM2903M	
⚠ IC561	6-708-394-01	IC	STV9325	
IC565	8-759-700-44	IC	NJM2902M	
⚠ IC601	6-709-448-01	IC	STR-W6735-LF2011	
⚠ IC602	6-705-063-01	IC	SE135N-LF38	
IC603	8-759-653-07	IC	PQ09RD21J00H	
IC604	8-759-641-26	IC	NJM2391DL1-33(TE1)	
IC605	6-705-469-01	IC	BA50BC0FP-E2	
	JACK			
J204	1-794-116-11	JACK BLOCK, PIN	2P	
J301	1-794-119-12	TERMINAL BLOCK, S	4P	
J303	1-794-117-11	JACK BLOCK, PIN	3P	
	CHIP CONDUCTOR			
JR2	1-216-864-11	SHORT CHIP		
JR3	1-216-864-11	SHORT CHIP		
JR4	1-216-864-11	SHORT CHIP		
JR5	1-216-864-11	SHORT CHIP		
JR6	1-216-864-11	SHORT CHIP		
JR7	1-216-864-11	SHORT CHIP		
JR8	1-216-864-11	SHORT CHIP		
JR9	1-216-864-11	SHORT CHIP		
JR10	1-216-864-11	SHORT CHIP		
JR11	1-216-864-11	SHORT CHIP		
JR12	1-216-864-11	SHORT CHIP		
JR13	1-216-864-11	SHORT CHIP		
JR14	1-216-296-11	SHORT CHIP		
JR15	1-216-296-11	SHORT CHIP		
JR16	1-216-864-11	SHORT CHIP		
JR17	1-216-864-11	SHORT CHIP		
JR18	1-216-864-11	SHORT CHIP		
JR20	1-216-296-11	SHORT CHIP		
JR21	1-216-864-11	SHORT CHIP		
JR22	1-216-864-11	SHORT CHIP		
JR23	1-216-864-11	SHORT CHIP		
JR24	1-216-864-11	SHORT CHIP		
JR25	1-216-864-11	SHORT CHIP		
JR27	1-216-864-11	SHORT CHIP		
JR28	1-216-864-11	SHORT CHIP		
JR29	1-216-864-11	SHORT CHIP		
JR30	1-216-864-11	SHORT CHIP		
JR31	1-216-296-11	SHORT CHIP		
JR32	1-216-296-11	SHORT CHIP		
JR33	1-216-864-11	SHORT CHIP		
JR34	1-216-296-11	SHORT CHIP		
JR35	1-216-296-11	SHORT CHIP		
JR36	1-216-296-11	SHORT CHIP		
JR101	1-216-864-11	SHORT CHIP		
JR601	1-216-864-11	SHORT CHIP		

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REF. NO.	PART NO.	DESCRIPTION	VALUES
	JUMPER WIRE		
JW199	1-469-578-11	FERRITE	1.1µH
JW200	1-469-578-11	FERRITE	1.1µH
	COIL		
L001	1-410-397-21	FERRITE	1.1µH
L002	1-410-397-21	FERRITE	1.1µH
L006	1-414-273-11	INDUCTOR	100µH
L007	1-414-267-21	INDUCTOR	10µH
L011	1-410-397-21	FERRITE	1.1µH
L020	1-469-561-21	INDUCTOR	100µH
L501	1-406-677-11	INDUCTOR	10MH
L502	1-412-552-11	INDUCTOR	2.2MH
L503	1-406-675-11	INDUCTOR	4.7MH
	(KD-32FS170/36FS170 ONLY)		
L511	1-409-955-31	INDUCTOR	8MH
L517	1-412-552-11	INDUCTOR	2.2MH
L520	1-469-561-21	INDUCTOR	100µH
L601	1-412-529-11	INDUCTOR	22µH
L602	1-412-529-11	INDUCTOR	22µH
L605	1-406-659-11	INDUCTOR	10µH
L3003	1-410-397-21	FERRITE	1.1µH
L3609	1-414-267-21	INDUCTOR	10µH
	PHOTO COUPLER		
⚠ PH601	8-749-019-60	IC	K1010HB01
	IC LINK		
PS401	1-576-337-21	IC LINK	2.7A 50V
⚠ PS601	1-533-597-41	IC LINK	5A 90V
⚠ PS602	1-533-597-41	IC LINK	5A 90V
⚠ PS603	1-533-597-41	IC LINK	5A 90V
PS604	1-533-597-41	IC LINK	5A 90V
⚠ PS605	1-532-984-11	IC LINK	2A 50V
	TRANSISTOR		
Q002	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q004	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q005	8-729-600-22	TRANSISTOR	2SA1235-F
Q006	8-729-422-27	TRANSISTOR	2SD601A-Q
Q008	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R
Q009	8-729-600-22	TRANSISTOR	2SA1235-F
Q301	8-729-600-22	TRANSISTOR	2SA1235-F
Q303	8-729-600-22	TRANSISTOR	2SA1235-F
Q305	8-729-600-22	TRANSISTOR	2SA1235-F
Q306	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	(KD-32FS170/36FS170 ONLY)		
Q307	8-729-600-22	TRANSISTOR	2SA1235-F
	(KD-32FS170/36FS170 ONLY)		
Q310	8-729-600-22	TRANSISTOR	2SA1235-F
Q316	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q390	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q391	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q400	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q401	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q501	8-729-140-50	TRANSISTOR	2SC3209LK
⚠ Q502	6-550-107-01	TRANSISTOR	2SD2645-YB
Q503	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q504	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q505	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q506	8-729-600-22	TRANSISTOR	2SA1235-F
Q507	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q508	6-550-362-01	TRANSISTOR	KTA1279
Q509	8-729-140-50	TRANSISTOR	2SC3209LK
Q511	8-729-120-28	TRANSISTOR	2SC1623-L5L6
⚠ Q512	8-729-809-29	TRANSISTOR	2SC4159-E
Q515	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q530	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q531	8-729-600-22	TRANSISTOR	2SA1235-F
Q532	6-550-362-01	TRANSISTOR	KTA1279
Q533	8-729-600-22	TRANSISTOR	2SA1235-F
Q561	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q562	8-729-600-22	TRANSISTOR	2SA1235-F
Q564	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q582	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q583	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q601	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q604	8-729-023-22	TRANSISTOR	2SD2114K
Q605	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q606	8-729-120-28	TRANSISTOR	2SC1623-L5L6
⚠ Q607	6-550-409-01	TRANSISTOR	KSC2383-O
Q608	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q609	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q3300	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	(KD-32FS170/36FS170 ONLY)		
	RESISTOR		
R001	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R002	1-216-864-11	SHORT CHIP	

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R003	1-216-821-11	METAL CHIP	1K	5%	1/10W
R004	1-216-817-11	METAL CHIP	470	5%	1/10W
R005	1-500-848-21	FERRITE	0µH		
R006	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R007	1-500-848-21	FERRITE	0µH		
R008	1-500-848-21	FERRITE	0µH		
R010	1-216-821-11	METAL CHIP	1K	5%	1/10W
R011	1-216-809-11	METAL CHIP	100	5%	1/10W
R012	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R013	1-216-809-11	METAL CHIP	100	5%	1/10W
R014	1-216-809-11	METAL CHIP	100	5%	1/10W
R015	1-216-833-11	METAL CHIP	10K	5%	1/10W
R016	1-216-809-11	METAL CHIP	100	5%	1/10W
R017	1-216-809-11	METAL CHIP	100	5%	1/10W
R018	1-216-809-11	METAL CHIP	100	5%	1/10W
R019	1-216-809-11	METAL CHIP	100	5%	1/10W
R021	1-216-809-11	METAL CHIP	100	5%	1/10W
R022	1-216-809-11	METAL CHIP	100	5%	1/10W
R023	1-216-809-11	METAL CHIP	100	5%	1/10W
R024	1-216-837-11	METAL CHIP	22K	5%	1/10W
R025	1-218-841-11	METAL CHIP	560	0.50%	1/10W
R026	1-216-809-11	METAL CHIP	100	5%	1/10W
R027	1-216-809-11	METAL CHIP	100	5%	1/10W
R028	1-216-809-11	METAL CHIP	100	5%	1/10W
R029	1-216-809-11	METAL CHIP	100	5%	1/10W
R030	1-216-809-11	METAL CHIP	100	5%	1/10W
R031	1-216-809-11	METAL CHIP	100	5%	1/10W
R032	1-216-809-11	METAL CHIP	100	5%	1/10W
R033	1-216-809-11	METAL CHIP	100	5%	1/10W
R034	1-216-809-11	METAL CHIP	100	5%	1/10W
R035	1-216-809-11	METAL CHIP	100	5%	1/10W
R036	1-216-809-11	METAL CHIP	100	5%	1/10W
R037	1-216-833-11	METAL CHIP	10K	5%	1/10W
R038	1-216-813-11	METAL CHIP	220	5%	1/10W
R039	1-216-813-11	METAL CHIP	220	5%	1/10W
R040	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R041	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R042	1-216-813-11	METAL CHIP	220	5%	1/10W
R043	1-216-813-11	METAL CHIP	220	5%	1/10W
R044	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R045	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R046	1-216-809-11	METAL CHIP	100	5%	1/10W
R047	1-216-809-11	METAL CHIP	100	5%	1/10W
R048	1-216-829-11	METAL CHIP	4.7K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R049	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R050	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R051	1-218-839-11	METAL CHIP	470	0.50%	1/10W
R052	1-216-809-11	METAL CHIP	100	5%	1/10W
R053	1-216-837-11	METAL CHIP	22K	5%	1/10W
R054	1-216-839-11	METAL CHIP	33K	5%	1/10W
R056	1-216-809-11	METAL CHIP	100	5%	1/10W
R063	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R064	1-216-833-11	METAL CHIP	10K	5%	1/10W
R065	1-216-833-11	METAL CHIP	10K	5%	1/10W
R066	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R077	1-216-821-11	METAL CHIP	1K	5%	1/10W
R080	1-216-833-11	METAL CHIP	10K	5%	1/10W
R081	1-216-841-11	METAL CHIP	47K	5%	1/10W
R082	1-216-857-11	METAL CHIP	1M	5%	1/10W
R083	1-216-847-11	METAL CHIP	150K	5%	1/10W
R084	1-216-819-11	METAL CHIP	680	5%	1/10W
R085	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R086	1-216-833-11	METAL CHIP	10K	5%	1/10W
R093	1-216-841-11	METAL CHIP	47K	5%	1/10W
R099	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R112	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R115	1-216-817-11	METAL CHIP	470	5%	1/10W
R116	1-216-853-11	METAL CHIP	470K	5%	1/10W
R301	1-216-864-11	SHORT CHIP			
R306	1-218-285-11	METAL CHIP	75	5%	1/10W
R309	1-216-833-11	METAL CHIP	10K	5%	1/10W
	(KD-32FS170/36FS170 ONLY)				
R310	1-216-821-11	METAL CHIP	1K	5%	1/10W
	(KD-32FS170/36FS170 ONLY)				
R311	1-216-813-11	METAL CHIP	220	5%	1/10W
R312	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R314	1-216-833-11	METAL CHIP	10K	5%	1/10W
R315	1-218-285-11	METAL CHIP	75	5%	1/10W
R316	1-218-285-11	METAL CHIP	75	5%	1/10W
R318	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R319	1-216-813-11	METAL CHIP	220	5%	1/10W
R320	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R321	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R322	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W
R323	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R324	1-216-821-11	METAL CHIP	1K	5%	1/10W
R325	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R326	1-500-848-21	FERRITE	0µH		

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R337	1-216-801-11	METAL CHIP	22	5%	1/10W
R341	1-218-845-11	METAL CHIP	820	0.50%	1/10W
	(KD-32FS170/36FS170 ONLY)				
R342	1-218-847-11	METAL CHIP	1K	0.50%	1/10W
	(KD-32FS170/36FS170 ONLY)				
R343	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
	(KD-32FS170/36FS170 ONLY)				
R344	1-216-821-11	METAL CHIP	1K	5%	1/10W
	(KD-32FS170/36FS170 ONLY)				
R351	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R352	1-216-853-11	METAL CHIP	470K	5%	1/10W
R353	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R354	1-216-864-11	SHORT CHIP			
R356	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R357	1-216-833-11	METAL CHIP	10K	5%	1/10W
R358	1-216-818-11	METAL CHIP	560	5%	1/10W
R359	1-216-833-11	METAL CHIP	10K	5%	1/10W
R363	1-218-285-11	METAL CHIP	75	5%	1/10W
R364	1-218-285-11	METAL CHIP	75	5%	1/10W
R365	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R370	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R371	1-216-849-11	METAL CHIP	220K	5%	1/10W
R372	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R378	1-216-863-11	METAL CHIP	3.3M	5%	1/10W
R382	1-216-863-11	METAL CHIP	3.3M	5%	1/10W
R385	1-218-672-11	METAL CHIP	150	0.50%	1/10W
R391	1-218-672-11	METAL CHIP	150	0.50%	1/10W
R397	1-218-285-11	METAL CHIP	75	5%	1/10W
R398	1-218-285-11	METAL CHIP	75	5%	1/10W
R399	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R401	1-216-841-11	METAL CHIP	47K	5%	1/10W
R402	1-216-845-11	METAL CHIP	100K	5%	1/10W
R403	1-216-843-11	METAL CHIP	68K	5%	1/10W
R404	1-216-845-11	METAL CHIP	100K	5%	1/10W
R406	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R409	1-216-864-11	SHORT CHIP			
R411	1-216-843-11	METAL CHIP	68K	5%	1/10W
R412	1-216-845-11	METAL CHIP	100K	5%	1/10W
R413	1-216-845-11	METAL CHIP	100K	5%	1/10W
R414	1-216-845-11	METAL CHIP	100K	5%	1/10W
R417	1-216-845-11	METAL CHIP	100K	5%	1/10W
R418	1-216-845-11	METAL CHIP	100K	5%	1/10W
R419	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R420	1-216-829-11	METAL CHIP	4.7K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R421	1-216-821-11	METAL CHIP	1K	5%	1/10W
R422	1-216-819-11	METAL CHIP	680	5%	1/10W
R423	1-216-833-11	METAL CHIP	10K	5%	1/10W
R425	1-216-833-11	METAL CHIP	10K	5%	1/10W
R427	1-215-857-11	METAL OXIDE	10	5%	1W
R500	1-216-813-11	METAL CHIP	220	5%	1/10W
R501	1-216-841-11	METAL CHIP	47K	5%	1/10W
R502	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R503	1-260-336-11	CARBON	4.7K	5%	1/2W
R504	1-243-608-71	METAL OXIDE	1.5K	5%	3W
	(KD-27FS170 ONLY)				
R504	1-215-915-21	METAL OXIDE	470	5%	3W
	(KD-32FS170/36FS170 ONLY)				
R505	1-216-833-11	METAL CHIP	10K	5%	1/10W
R506	1-215-884-11	METAL OXIDE	47	5%	2W
R507	1-249-401-11	CARBON	47	5%	1/4W
R508	1-216-833-11	METAL CHIP	10K	5%	1/10W
R509	1-215-869-11	METAL OXIDE	1K	5%	1W
⚠ R510	1-215-908-00	METAL OXIDE	33	5%	3W
R511	1-216-833-11	METAL CHIP	10K	5%	1/10W
R512	1-243-571-71	METAL OXIDE	390	5%	2W
	(KD-27FS170 ONLY)				
R512	1-215-886-71	METAL OXIDE	100	5%	2W
	(KD-32FS170/36FS170 ONLY)				
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R515	1-216-845-11	METAL CHIP	100K	5%	1/10W
R516	1-260-127-11	CARBON	220K	5%	1/2W
R517	1-249-415-11	CARBON	680	5%	1/4W
R518	1-216-833-11	METAL CHIP	10K	5%	1/10W
R519	1-249-411-11	CARBON	330	5%	1/4W
R520	1-243-535-71	METAL OXIDE	220	5%	3W
	(KD-27FS170 ONLY)				
R520	1-216-912-11	METAL OXIDE	150	5%	3W
	(KD-32FS170/36FS170 ONLY)				
R521	1-216-815-11	METAL CHIP	330	5%	1/10W
	(KD-27FS170 ONLY)				
R521	1-216-817-11	METAL CHIP	470	5%	1/10W
	(KD-32FS170/36FS170 ONLY)				
R522	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
R523	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
	(KD-27FS170 ONLY)				
R523	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
	(KD-32FS170/36FS170 ONLY)				

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

A component identified by this ⋈ symbol indicates that it has been carefully factory-selected to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R524	1-216-833-11	METAL CHIP	10K	5%	1/10W
R525	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
R526	1-216-837-11	METAL CHIP	22K	5%	1/10W
R527	1-216-815-11	METAL CHIP	330	5%	1/10W
R528	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
⋈ ⚠ R529	1-218-893-11	METAL CHIP	82K	0.50%	1/10W
⋈ ⚠ R530	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
	(KD-27FS170 ONLY)				
⋈ ⚠ R530	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
	(KD-32FS170/36FS170 ONLY)				
⋈ ⚠ R531	1-218-903-11	METAL CHIP	220K	0.50%	1/10W
	(KD-27FS170 ONLY)				
⋈ ⚠ R531	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
	(KD-32FS170/36FS170 ONLY)				
R532	1-216-810-11	METAL CHIP	120	5%	1/10W
R533	1-215-879-11	METAL OXIDE	47K	5%	1W
R534	1-216-817-11	METAL CHIP	470	5%	1/10W
R535	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
⚠ R536	1-260-288-11	CARBON	0.47	5%	1/2W
⚠ R537	1-260-288-11	CARBON	0.47	5%	1/2W
R538	1-247-887-00	CARBON	220K	5%	1/4W
R540	1-216-833-11	METAL CHIP	10K	5%	1/10W
R541	1-216-841-11	METAL CHIP	47K	5%	1/10W
R542	1-216-833-11	METAL CHIP	10K	5%	1/10W
R543	1-249-377-11	CARBON	0.47	5%	1/4W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W
⚠ R545	1-249-387-11	CARBON	3.3	5%	1/4W
R546	1-215-453-00	METAL	22K	1%	1/4W
	(KD-27FS170 ONLY)				
R546	1-215-445-00	METAL	10K	1%	1/4W
	(KD-32FS170/36FS170 ONLY)				
R547	1-215-451-00	METAL	18K	1%	1/4W
R548	1-215-447-00	METAL	12K	1%	1/4W
R549	1-215-429-00	METAL	2.2K	1%	1/4W
R551	1-215-873-00	METAL OXIDE	4.7K	5%	1W
R552	1-243-608-71	METAL OXIDE	1.5K	5%	3W
	(KD-27FS170 ONLY)				
R552	1-215-915-21	METAL OXIDE	470	5%	3W
	(KD-32FS170/36FS170 ONLY)				
⚠ R553	1-249-377-11	CARBON	0.47	5%	1/4W
R554	1-216-833-11	METAL CHIP	10K	5%	1/10W
R555	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R556	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R557	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R559	1-216-845-11	METAL CHIP	100K	5%	1/10W
R560	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R561	1-215-445-00	METAL	10K	1%	1/4W
R562	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-214-798-21	METAL	1.8	1%	1/2W
R564	1-247-895-91	CARBON	470K	5%	1/4W
R565	1-215-889-00	METAL OXIDE	330	5%	2W
R566	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R567	1-249-385-11	CARBON	2.2	5%	1/4W
R568	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R569	1-218-871-11	METAL CHIP	10K	0.50%	1/10W
R570	1-216-833-11	METAL CHIP	10K	5%	1/10W
R571	1-216-833-11	METAL CHIP	10K	5%	1/10W
R572	1-216-833-11	METAL CHIP	10K	5%	1/10W
R573	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
R574	1-214-798-21	METAL	1.8	1%	1/2W
R575	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R576	1-215-445-00	METAL	10K	1%	1/4W
⋈ ⚠R577	1-218-893-11	METAL CHIP	82K	0.50%	1/10W
	(KD-27FS170 ONLY)				
⋈ ⚠R577	1-218-891-11	METAL CHIP	68K	0.50%	1/10W
	(KD-32FS170/36FS170 ONLY)				
R579	1-216-833-11	METAL CHIP	10K	5%	1/10W
R580	1-216-845-11	METAL CHIP	100K	5%	1/10W
R581	1-216-821-11	METAL CHIP	1K	5%	1/10W
R583	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R584	1-216-833-11	METAL CHIP	10K	5%	1/10W
R586	1-216-843-11	METAL CHIP	68K	5%	1/10W
R587	1-216-837-11	METAL CHIP	22K	5%	1/10W
R589	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R590	1-216-833-11	METAL CHIP	10K	5%	1/10W
⚠ R592	1-243-803-71	METAL OXIDE	0.33	5%	1W
R593	1-249-417-11	CARBON	1K	5%	1/4W
	(KD-27FS170 ONLY)				
R593	1-249-420-11	CARBON	1.8K	5%	1/4W
	(KD-32FS170/36FS170 ONLY)				
R594	1-249-429-11	CARBON	10K	5%	1/4W
R595	1-247-891-00	CARBON	330K	5%	1/4W
R596	1-249-441-11	CARBON	100K	5%	1/4W
R597	1-216-864-11	SHORT CHIP			
R598	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R599	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R601	1-216-833-11	METAL CHIP	10K	5%	1/10W
R602	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

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NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
⚠ R603	1-240-303-31	METAL	0.22	5%	10W
R604	1-216-864-11	SHORT CHIP			
R606	1-219-759-11	METAL	1M	5%	1/2W
R607	1-247-289-00	METAL	8.2M	5%	1W
R610	1-205-997-31	METAL	2.2	5%	10W
R611	1-243-685-71	METAL OXIDE	68	5%	1W
R612	1-216-845-11	METAL CHIP	100K	5%	1/10W
R613	1-249-429-11	CARBON	10K	5%	1/4W
R614	1-260-135-11	CARBON	1M	5%	1/2W
R615	1-218-883-11	METAL CHIP	33K	0.50%	1/10W
R616	1-243-953-71	METAL OXIDE	0.22	5%	3W
R617	1-243-957-71	METAL OXIDE	0.47	5%	3W
R620	1-247-807-31	CARBON	100	5%	1/4W
⚠ R621	1-216-864-11	SHORT CHIP			
R623	1-249-409-11	CARBON	220	5%	1/4W
R624	1-215-421-00	METAL	1K	1%	1/4W
R625	1-249-393-11	CARBON	10	5%	1/4W
R626	1-216-821-11	METAL CHIP	1K	5%	1/10W
R629	1-216-864-11	SHORT CHIP			
R630	1-218-847-11	METAL CHIP	1K	0.50%	1/10W
R631	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R632	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R633	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R634	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R636	1-247-843-11	CARBON	3.3K	5%	1/4W
R637	1-218-823-11	METAL CHIP	100	0.50%	1/10W
R639	1-215-924-00	METAL OXIDE	15K	5%	3W
R640	1-249-415-11	CARBON	680	5%	1/4W
R641	1-469-578-11	FERRITE	1.1µH		
R643	1-215-905-11	METAL OXIDE	10	5%	3W
R644	1-215-902-11	METAL OXIDE	47K	5%	2W
R645	1-215-902-11	METAL OXIDE	47K	5%	2W
⚠ R646	1-242-949-11	FUSIBLE	0.1	10%	1W
R647	1-216-821-11	METAL CHIP	1K	5%	1/10W
R648	1-216-845-11	METAL CHIP	100K	5%	1/10W
R649	1-216-849-11	METAL CHIP	220K	5%	1/10W
R650	1-216-845-11	METAL CHIP	100K	5%	1/10W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W
R652	1-216-845-11	METAL CHIP	100K	5%	1/10W
R862	1-216-813-11	METAL CHIP	220	5%	1/10W
R1510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1511	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3058	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3085	1-216-864-11	SHORT CHIP			
R3308	1-216-809-11 (KD-32FS170/36FS170 ONLY)	METAL CHIP	100	5%	1/10W
R3315	1-216-813-11	METAL CHIP	220	5%	1/10W
R3317	1-216-813-11	METAL CHIP	220	5%	1/10W
R3517	1-218-873-11 (KD-27FS170 ONLY)	METAL CHIP	12K	0.50%	1/10W
R3517	1-218-881-11 (KD-32FS170/36FS170 ONLY)	METAL CHIP	27K	0.50%	1/10W
R3525	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3527	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3529	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3530	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R3533	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
R3534	1-218-720-11	METAL CHIP	15K	0.50%	1/10W
R3535	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R3536	1-218-87311 (KD-27FS170 ONLY)	METAL CHIP	12K	0.50%	1/10W
R3536	1-218-879-11 (KD-32FS170/36FS170 ONLY)	METAL CHIP	22K	0.50%	1/10W
R3537	1-216-855-11	METAL CHIP	680K	5%	1/10W
R3541	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3550	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3570	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R3571	1-218-891-11	METAL CHIP	68K	0.50%	1/10W
R3590	1-216-849-11	METAL CHIP	220K	5%	1/10W
R3591	1-216-851-11	METAL CHIP	330K	5%	1/10W
R3595	1-216-833-11	METAL CHIP	10K	5%	1/10W

RELAY

RY601	1-755-198-11	RELAY, AC POWER

SWITCH

S501	1-572-707-11	SWITCH, LEVER

SPARK GAP

SG605	1-576-487-11	ELEMENT, SPARK

TRANSFORMER

T501	1-433-836-11	TRANSFORMER, HORIZONTAL DRIVE
⚠ T502	1-435-869-11	TRANFORMER, FERRITE (PMT)
⚠ T503	1-453-480-11 (KD-27FS170 ONLY)	FBT ASSY NX-4910//X4A4
⚠ T503	1-453-481-11 (KD-32FS170/36FS170 ONLY)	FBT ASSY NX-4900//X4J4

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

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	REF. NO.	PART NO.	DESCRIPTION	VALUES
⚠	T505	1-433-850-11	TRANSFORMER, HORIZONTAL LINEAR (KD-27FS170 ONLY)	
⚠	T505	1-435-098-21	TRANSFORMER, HORIZONTAL LINEAR (KD-32FS170/36FS170 ONLY)	
	T506	1-413-059-00	TRANSFORMER, FERRITE (DFT) (KD-32FS170/36FS170 ONLY)	
	T601	1-443-402-11	TRANSFORMER, LINE FILTER	
	T602	1-445-006-11	SWITCHING REGULATOR TRANSFORMER	
		THERMISTOR		
	THP601	1-803-970-11	THERMISTOR, POSITIVE	
		TUNER		
⚠	TU001	8-598-593-70	TUNER, FSS BTF-WA421	
		VARISTOR		
	VDR601	1-804-992-11	VARISTOR	
	VDR603	1-804-991-21	VARISTOR	
	VDR604	1-804-991-21	VARISTOR	
		CRYSTAL		
	X001	1-795-006-21	VIBRATOR, CRYSTAL	
	X301	1-781-377-31	VIBRATOR, CRYSTAL	

CV

		A-1171-113-A	**CV (COM) BOARD, MOUNTED (KD-27FS170 ONLY)**			
		4-382-854-11	SCREW (M3X10), P, SW (+)			
		CAPACITOR				
	C704	1-107-652-11	ELECT	10UF	20%	250V
	C705	1-107-652-11	ELECT	10UF	20%	250V
	C706	1-137-528-11	MYLAR	0.1UF	10%	250V
	C711	1-102-074-00	CERAMIC	0.001UF	10%	50V
	C715	1-162-114-00	CERAMIC	0.0047UF		2KV
	C716	1-162-114-00	CERAMIC	0.0047UF		2KV
	C734	1-164-645-11	CERAMIC	1000PF	10%	500V
		CONNECTOR				
	CN703	1-695-915-11	TAB (CONTACT)			
*	CN704	1-785-879-21	ONE TOUCH CONNECTOR			
*	CN901	1-564-510-11	PLUG, CONNECTOR	7P		

	REF. NO.	PART NO.	DESCRIPTION	VALUES		
		DIODE				
	D701	8-719-901-83	DIODE	1SS83		
	D702	8-719-901-83	DIODE	1SS83		
	D703	8-719-901-83	DIODE	1SS83		
	D704	8-719-074-25	DIODE	PG104R		
		IC				
⚠	IC702	8-759-562-43	IC	TDA6108JF/N1B		
		JACK				
⚠	J701	1-451-470-21	SOCKET, CRT			
		COIL				
	L701	1-410-482-31	INDUCTOR	100UH		
		RESISTOR				
	R708	1-247-807-31	CARBON	100	5%	1/4W
	R709	1-247-807-31	CARBON	100	5%	1/4W
	R710	1-247-807-31	CARBON	100	5%	1/4W
	R711	1-260-328-11	CARBON	1K	5%	1/2W
	R712	1-260-328-11	CARBON	1K	5%	1/2W
	R713	1-260-328-11	CARBON	1K	5%	1/2W
	R714	1-260-087-11	CARBON	100	5%	1/2W
	R715	1-260-132-11	CARBON	560K	5%	1/2W
	R716	1-260-087-11	CARBON	100	5%	1/2W
	R717	1-216-361-00	METAL OXIDE	0.22	5%	2W
	R718	1-216-361-00	METAL OXIDE	0.22	5%	2W
	R722	1-247-807-31	CARBON	100	5%	1/4W
	R723	1-247-807-31	CARBON	100	5%	1/4W
	R724	1-247-807-31	CARBON	100	5%	1/4W
⚠	R760	1-249-401-11	CARBON	47	5%	1/4W
	R761	1-260-288-11	CARBON	0.47	5%	1/2W
		VARIABLE RESISTOR				
⚠	RV701	1-241-656-11	RES, ADJ, METAL FILM 110M			
		SPARK GAP				
	SG701	1-519-421-11	GAP, DISCHARGE			

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

CV

CV

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	A-1171-119-A	**CV (VAR) BOARD, MOUNTED (KD-32FS170/36FS170 ONLY)**			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	CAPACITOR				
C704	1-107-652-11	ELECT	10µF	20%	250V
C705	1-107-652-11	ELECT	10µF	20%	250V
C706	1-137-528-11	MYLAR	0.1µF	10%	250V
C711	1-102-074-00	CERAMIC	0.001µF	10%	50V
C715	1-162-114-00	CERAMIC	0.0047µF		2KV
C716	1-162-114-00	CERAMIC	0.0047µF		2KV
C731	1-126-947-11	ELECT	47µF	20%	35V
C732	1-126-960-11	ELECT	1µF	20%	50V
C733	1-126-963-11	ELECT	4.7µF	20%	50V
C734	1-164-645-11	CERAMIC	1000pF	10%	500V
C901	1-107-667-11	ELECT	2.2µF	20%	400V
C902	1-107-364-11	MYLAR	0.01µF	10%	200V
C903	1-126-935-11	ELECT	470µF	20%	16V
C904	1-130-471-00	MYLAR	0.001µF	5%	50V
C905	1-107-364-11	MYLAR	0.01µF	10%	200V
C906	1-130-471-00	MYLAR	0.001µF	5%	50V
C907	1-107-963-11	ELECT	33µF	20%	250V
C908	1-126-935-11	ELECT	470µF	20%	16V
C909	1-104-999-11	MYLAR	0.1µF	5%	200V
C910	1-104-999-11	MYLAR	0.1µF	5%	200V
C911	1-126-933-11	ELECT	100µF	20%	16V
C912	1-126-933-11	ELECT	100µF	20%	16V
C913	1-102-074-00	CERAMIC	0.001µF	10%	50V
C914	1-130-491-00	MYLAR	0.047µF	5%	50V
C930	1-104-655-91	ELECT	470µF	20%	6.3V
C931	1-104-655-91	ELECT	470µF	20%	6.3V
	CONNECTOR				
* CN701	1-564-506-11	PLUG, CONNECTOR		3P	
CN702	1-695-915-11	TAB (CONTACT)			
CN703	1-695-915-11	TAB (CONTACT)			
* CN704	1-785-879-21	ONE TOUCH CONNECTOR			
* CN901	1-564-510-11	PLUG, CONNECTOR		7P	
* CN902	1-564-506-11	PLUG, CONNECTOR		3P	
	DIODE				
D701	8-719-901-83	DIODE	1SS83		
D702	8-719-901-83	DIODE	1SS83		
D703	8-719-901-83	DIODE	1SS83		
D704	8-719-074-25	DIODE	PG104R		
D901	8-719-924-11	DIODE	MTZJ-T-77-22		
D902	8-719-924-11	DIODE	MTZJ-T-77-22		
D903	8-719-404-50	DIODE	MA111-TX		
D905	8-719-404-50	DIODE	MA111-TX		
D906	8-719-404-50	DIODE	MA111-TX		
D907	8-719-404-50	DIODE	MA111-TX		
D908	8-719-404-50	DIODE	MA111-TX		
	IC				
IC701	8-759-356-16	IC	NJM4556AD		
⚠ IC702	8-759-562-43	IC	TDA6108JF/N1B		
	JACK				
⚠ J701	1-451-470-21	SOCKET, CRT			
	COIL				
L701	1-410-482-31	INDUCTOR	100µH		
L901	1-260-288-11	CARBON	0.47	5%	1/2W
	TRANSISTOR				
Q701	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
⚠ Q901	6-551-125-01	TRANSISTOR	2SC59930J1S0		
⚠ Q902	6-551-126-01	TRANSISTOR	2SA21400J1S0		
Q903	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q904	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q905	8-729-600-22	TRANSISTOR	2SA1235-F		
⚠ Q906	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q907	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q908	8-729-600-22	TRANSISTOR	2SA1235-F		
	RESISTOR				
R708	1-247-807-31	CARBON	100	5%	1/4W
R709	1-247-807-31	CARBON	100	5%	1/4W
R710	1-247-807-31	CARBON	100	5%	1/4W
R711	1-260-328-11	CARBON	1K	5%	1/2W
R712	1-260-328-11	CARBON	1K	5%	1/2W
R713	1-260-328-11	CARBON	1K	5%	1/2W
R714	1-260-087-11	CARBON	100	5%	1/2W
R715	1-260-132-11	CARBON	560K	5%	1/2W
R716	1-260-087-11	CARBON	100	5%	1/2W
R717	1-216-361-00	METAL OXIDE	0.22	5%	2W
R718	1-216-361-00	METAL OXIDE	0.22	5%	2W
R722	1-247-807-31	CARBON	100	5%	1/4W

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

CV HS

	REF. NO.	PART NO.	DESCRIPTION	VALUES		
	R723	1-247-807-31	CARBON	100	5%	1/4W
	R724	1-247-807-31	CARBON	100	5%	1/4W
	R751	1-249-425-11	CARBON	4.7K	5%	1/4W
	R753	1-249-421-11	CARBON	2.2K	5%	1/4W
	R754	1-216-837-11	METAL CHIP	22K	5%	1/10W
	R755	1-216-838-11	METAL CHIP	27K	5%	1/10W
	R756	1-216-837-11	METAL CHIP	22K	5%	1/10W
	R757	1-216-833-11	METAL CHIP	10K	5%	1/10W
	R758	1-247-791-91	CARBON	22	5%	1/4W
⚠	R760	1-249-401-11	CARBON	47	5%	1/4W
	R761	1-260-288-11	CARBON	0.47	5%	1/2W
	R901	1-249-405-11	CARBON	100	5%	1/4W
⚠	R902	1-249-385-11	CARBON	2.2	5%	1/4W
	R903	1-249-414-11	CARBON	560	5%	1/4W
	R904	1-249-432-11	CARBON	18K	5%	1/4W
	R905	1-249-421-11	CARBON	2.2K	5%	1/4W
	R906	1-249-432-11	CARBON	18K	5%	1/4W
⚠	R907	1-249-385-11	CARBON	2.2	5%	1/4W
⚠	R908	1-249-414-11	CARBON	560	5%	1/4W
⚠	R909	1-260-316-51	CARBON	100	5%	1/2W
	R910	1-215-915-11	METAL OXIDE	470	5%	3W
	R911	1-215-405-00	METAL	220	1%	1/4W
	R912	1-216-811-11	METAL CHIP	150	5%	1/10W
	R913	1-218-662-11	METAL CHIP	56	0.50%	1/10W
	R914	1-216-820-11	METAL CHIP	820	5%	1/10W
	R915	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
	R916	1-216-864-11	SHORT CHIP			
	R917	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
	R918	1-216-805-11	METAL CHIP	47	5%	1/10W
	R919	1-216-805-11	METAL CHIP	47	5%	1/10W
	R921	1-216-833-11	METAL CHIP	10K	5%	1/10W
⚠	R922	1-249-397-11	CARBON	22	5%	1/4W
	R923	1-216-805-11	METAL CHIP	47	5%	1/10W
	R930	1-216-864-11	SHORT CHIP			
	R931	1-249-421-11	CARBON	2.2K	5%	1/4W
	R932	1-218-851-11	METAL CHIP	1.5K	0.50%	1/10W
	R933	1-216-864-11	SHORT CHIP			
	R935	1-249-405-11	CARBON	100	5%	1/4W
	R938	1-216-864-11	SHORT CHIP			

VARIABLE RESISTOR

⚠	RV701	1-241-656-11	RES, ADJ, METAL FILM	110M
	RV702	1-238-019-11	RES, ADJ, CARBON	47K

REF. NO.	PART NO.	DESCRIPTION	VALUES		
		SPARK GAP			
SG701	1-519-421-11	GAP, DISCHARGE			

HS

*	**A-1171-115-A**	**HS BOARD, MOUNTED**			
		CAPACITOR			
C1001	1-104-665-11	ELECT	100µF	20%	25V
C1234	1-126-960-11	ELECT	1µF	20%	50V
C1235	1-126-960-11	ELECT	1µF	20%	50V
		DIODE			
D1002	8-719-070-80	DIODE	LNK0120022G		
D1004	1-102-244-00	CERAMIC	220pF	10%	500V
D1005	8-719-109-89	DIODE	RD5.6ESB2		
D1235	8-719-108-12	DIODE	RD9.1EW		
D1236	8-719-108-12	DIODE	RD9.1EW		
		IC			
IC1001	8-742-212-20	HYB IC	SBX3081-71		
		JACK			
J1231	1-794-048-11	JACK, PIN	3P		
		RESISTOR			
R1004	1-249-417-11	CARBON	1K	5%	1/4W
R1007	1-247-807-31	CARBON	100	5%	1/4W
R1008	1-249-427-11	CARBON	6.8K	5%	1/4W
R1009	1-249-421-11	CARBON	2.2K	5%	1/4W
R1010	1-249-416-11	CARBON	820	5%	1/4W
R1011	1-249-415-11	CARBON	680	5%	1/4W
R1012	1-249-437-11	CARBON	47K	5%	1/4W
R1235	1-249-409-11	CARBON	220	5%	1/4W
R1236	1-249-441-11	CARBON	100K	5%	1/4W
R1237	1-249-409-11	CARBON	220	5%	1/4W
R1238	1-249-441-11	CARBON	100K	5%	1/4W
		SWITCH			
S1001	1-692-431-21	SWITCH, TACTILE			
S1002	1-692-431-21	SWITCH, TACTILE			
S1003	1-692-431-21	SWITCH, TACTILE			
S1004	1-692-431-21	SWITCH, TACTILE			
S1005	1-692-431-21	SWITCH, TACTILE			

HS M

REF. NO.	PART NO.	DESCRIPTION	VALUES		
S1006	1-692-431-21	SWITCH, TACTILE			
S1007	1-692-431-21	SWITCH, TACTILE			

M

A-1171-117-A M BOARD, MOUNTED

CAPACITOR

C1100	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C1101	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C1102	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1103	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1105	1-164-160-11	CERAMIC CHIP	20pF	5%	50V
C1108	1-124-779-00	ELECT CHIP	10µF	20%	16V
C1109	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C1110	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C1111	1-117-681-11	ELECT CHIP	100µF	20%	16V
C1112	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C1113	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C1115	1-128-991-21	ELECT CHIP	10µF	20%	50V
C1116	1-164-160-11	CERAMIC CHIP	20pF	5%	50V
C1117	1-165-989-11	CERAMIC CHIP	10µF	10%	6.3V
C1118	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1119	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C1120	1-165-989-11	CERAMIC CHIP	10µF	10%	6.3V
C1121	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1122	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1123	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1124	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1125	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1126	1-165-875-11	CERAMIC CHIP	10µF	10%	10V
C1127	1-165-875-11	CERAMIC CHIP	10µF	10%	10V
C1134	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C1135	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1136	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C1137	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C1138	1-126-208-21	ELECT CHIP	47µF	20%	4V
C1139	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1140	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1141	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1142	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1143	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1147	1-165-989-11	CERAMIC CHIP	10µF	10%	6.3V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C1148	1-165-989-11	CERAMIC CHIP	10µF	10%	6.3V
C1149	1-126-208-21	ELECT CHIP	47µF	20%	4V
C1150	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1151	1-126-208-21	ELECT CHIP	47µF	20%	4V
C1152	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1153	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1154	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1155	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1156	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1157	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1158	1-126-208-21	ELECT CHIP	47µF	20%	4V
C1159	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1160	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1161	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1162	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1163	1-126-209-11	ELECT CHIP	100µF	20%	4V
C1164	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1165	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1166	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1167	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1168	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1169	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1170	1-126-208-21	ELECT CHIP	47µF	20%	4V
C1171	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1172	1-126-208-21	ELECT CHIP	47µF	20%	4V
C1173	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1174	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1175	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1176	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C1177	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1178	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1179	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1180	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1181	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1182	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1183	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1184	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1185	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1186	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1187	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1188	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1189	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1190	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1191	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V

M

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C1192	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1193	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1194	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1195	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1196	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1197	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C1198	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1199	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1200	1-126-204-11	ELECT CHIP	47µF	20%	16V
C1201	1-112-514-91	CERAMIC CHIP	1500pF	5%	50V
C1202	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C1203	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1204	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1206	1-165-989-11	CERAMIC CHIP	10µF	10%	6.3V
C1207	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1208	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1210	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1211	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1215	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C1216	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C1217	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C1218	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C1219	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1220	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1221	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1222	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1223	1-125-838-11	CERAMIC CHIP	2.2µF	10%	6.3V
C1224	1-125-838-11	CERAMIC CHIP	2.2µF	10%	6.3V
C1225	1-162-962-11	CERAMIC CHIP	470pF	10%	50V
C1226	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1227	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C1228	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C1229	1-162-962-11	CERAMIC CHIP	470pF	10%	50V
C1230	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1231	1-126-246-11	ELECT CHIP	220µF	20%	4V
C1232	1-126-246-11	ELECT CHIP	220µF	20%	4V
C1233	1-126-246-11	ELECT CHIP	220µF	20%	4V
C1234	1-126-246-11	ELECT CHIP	220µF	20%	4V
C1237	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C1238	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C1239	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1241	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C1242	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1243	1-162-921-11	CERAMIC CHIP	33pF	5%	50V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C1244	1-162-921-11	CERAMIC CHIP	33pF	5%	50V
C1245	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C1246	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C1247	1-164-245-11	CERAMIC CHIP	0.015µF	10%	25V
C1248	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C1249	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C1250	1-164-245-11	CERAMIC CHIP	0.015µF	10%	25V
C1251	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C1252	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C1253	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C1254	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1255	1-165-908-11	CERAMIC CHIP	1µF	10%	10V
C1256	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1257	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1258	1-165-908-11	CERAMIC CHIP	1µF	10%	10V
C1259	1-165-908-11	CERAMIC CHIP	1µF	10%	10V
C1260	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C1261	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1263	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1265	1-165-875-11	CERAMIC CHIP	10µF	10%	10V
C1267	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1268	1-165-875-11	CERAMIC CHIP	10µF	10%	10V
C1269	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C1271	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1272	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C1274	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1275	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C1277	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C1279	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1280	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1282	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1283	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1285	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
C1286	1-126-208-21	ELECT CHIP	47µF	20%	4V
C1287	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
C1288	1-165-908-11	CERAMIC CHIP	1µF	10%	10V
C1289	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C1290	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C1291	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C1292	1-165-989-11	CERAMIC CHIP	10µF	10%	6.3V
C1293	1-117-681-11	ELECT CHIP	100µF	20%	16V
C1294	1-117-681-11	ELECT CHIP	100µF	20%	16V
C1295	1-117-681-11	ELECT CHIP	100µF	20%	16V
C1296	1-112-514-91	CERAMIC CHIP	1500pF	5%	50V

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	REF. NO.	PART NO.	DESCRIPTION	VALUES		
	C1297	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
	C1298	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
	C1299	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
	C1300	1-165-875-11	CERAMIC CHIP	10µF	10%	10V
	C1301	1-165-875-11	CERAMIC CHIP	10µF	10%	10V
	C1302	1-100-055-11	CERAMIC CHIP	22µF	20%	16V
	C1303	1-117-681-11	ELECT CHIP	100µF	20%	16V
	C1304	1-117-681-11	ELECT CHIP	100µF	20%	16V
	C1305	1-117-681-11	ELECT CHIP	100µF	20%	16V
	C1306	1-117-681-11	ELECT CHIP	100µF	20%	16V
	C1307	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
	C1311	1-100-566-91	CERAMIC CHIP	0.1µF	10%	25V
	C1312	1-117-681-11	ELECT CHIP	100µF	20%	16V
	C1323	1-162-924-11	CERAMIC CHIP	56pF	5%	50V
	C1324	1-162-924-11	CERAMIC CHIP	56pF	5%	50V
	C1327	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
	C1328	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
	C1329	1-162-928-11	CERAMIC CHIP	120pF	5%	50V
	C1330	1-162-928-11	CERAMIC CHIP	120pF	5%	50V
	C1333	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
	C1334	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
	C1345	1-164-217-11	CERAMIC CHIP	150pF	5%	50V
	C1346	1-164-218-11	CERAMIC CHIP	180pF	5%	50V
		CONNECTOR				
*	CN1101	1-764-334-11	PIN, CONNECTOR(PCB)(V TYPE)			11P
*	CN1106	1-564-512-11	PLUG, CONNECTOR			9P
		DIODE				
	D1106	8-719-914-43	DIODE	DAN202K		
	D1114	8-719-914-44	DIODE	DAP202K		
	D1118	8-719-914-43	DIODE	DAN202K		
	D1119	8-719-404-50	DIODE	MA111-TX		
	D1120	8-719-404-50	DIODE	MA111-TX		
	D1121	8-719-914-44	DIODE	DAP202K		
	D1122	8-719-914-43	DIODE	DAN202K		
		FUSE				
	F1100	1-576-925-11	IC LINK	3.15A		0V
		FERRITE BEAD				
	FB1101	1-414-229-11	FERRITE	0µH		
	FB1103	1-414-229-11	FERRITE	0µH		
	FB1104	1-414-229-11	FERRITE	0µH		

REF. NO.	PART NO.	DESCRIPTION	VALUES
FB1105	1-414-229-11	FERRITE	0µH
FB1106	1-414-229-11	FERRITE	0µH
FB1107	1-414-229-11	FERRITE	0µH
FB1108	1-414-229-11	FERRITE	0µH
FB1109	1-414-229-11	FERRITE	0µH
FB1110	1-216-295-91	SHORT CHIP	
FB1111	1-216-295-91	SHORT CHIP	
FB1112	1-216-295-91	SHORT CHIP	
	IC		
IC1100	6-705-306-01	IC	HYB25DC256160CE-6
IC1102	6-702-799-01	IC	MM1509XNRE
IC1103	6-702-799-01	IC	MM1509XNRE
IC1104	6-709-515-01	IC	R8A66950BG
IC1105	6-806-410-01	IC	M5M29KB331AVP
IC1106	1-813-330-21	OSCILLATOR, CRYSTAL	
IC1107	6-709-469-01	IC	LGDT3303
IC1109	6-700-227-01	IC	MM1561JFBE
IC1111	6-708-476-01	IC	AK4384ET-E2
IC1112	6-709-075-01	IC	TPS5124DBTRG4
IC1113	8-759-641-26	IC	NJM2391DL1-33(TE1)
IC1114	6-700-399-01	IC	UPC2925T-E1
	COIL		
L1102	1-500-848-21	FERRITE	0µH
L1103	1-414-754-11	INDUCTOR	10µH
L1104	1-216-295-91	SHORT CHIP	
L1105	1-414-757-11	INDUCTOR	100µH
L1106	1-414-752-11	INDUCTOR	2.2µH
L1107	1-414-752-11	INDUCTOR	2.2µH
L1108	1-414-752-11	INDUCTOR	2.2µH
L1109	1-414-753-91	INDUCTOR	4.7µH
L1110	1-469-549-21	INDUCTOR	1µH
L1111	1-469-549-21	INDUCTOR	1µH
L1113	1-414-751-11	INDUCTOR	1µH
L1114	1-414-752-11	INDUCTOR	2.2µH
L1116	1-414-752-11	INDUCTOR	2.2µH
L1124	1-414-751-11	INDUCTOR	1µH
L1128	1-416-344-11	INDUCTOR	10µH
L1129	1-424-922-21	INDUCTOR	10µH
L1132	1-414-920-41	INDUCTOR	220NH
L1133	1-414-920-41	INDUCTOR	220NH
L1136	1-414-580-31	INDUCTOR	100NH
L1137	1-414-580-31	INDUCTOR	100NH

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
L1138	1-414-577-41	INDUCTOR	56NH		
L1139	1-414-577-41	INDUCTOR	56NH		
L1143	1-414-579-41	INDUCTOR	82NH		
L1144	1-414-578-41	INDUCTOR	68NH		
	TRANSISTOR				
Q1100	8-729-054-68	TRANSISTOR	FDS6986S		
Q1101	8-729-054-68	TRANSISTOR	FDS6986S		
Q1103	6-550-014-01	TRANSISTOR	SSM6N15FU(TE85R)		
Q1104	6-550-014-01	TRANSISTOR	SSM6N15FU(TE85R)		
Q1105	6-550-014-01	TRANSISTOR	SSM6N15FU(TE85R)		
Q1106	6-550-014-01	TRANSISTOR	SSM6N15FU(TE85R)		
	RESISTOR				
R1100	1-216-864-11	SHORT CHIP			
R1101	1-216-864-11	SHORT CHIP			
R1102	1-218-866-11	METAL CHIP	6.2K	0.50%	1/10W
R1103	1-216-809-11	METAL CHIP	100	5%	1/10W
R1104	1-218-866-11	METAL CHIP	6.2K	0.50%	1/10W
R1105	1-216-857-11	METAL CHIP	1M	5%	1/10W
R1106	1-216-809-11	METAL CHIP	100	5%	1/10W
R1107	1-216-809-11	METAL CHIP	100	5%	1/10W
R1111	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1113	1-216-809-11	METAL CHIP	100	5%	1/10W
R1114	1-216-809-11	METAL CHIP	100	5%	1/10W
R1115	1-216-864-11	SHORT CHIP			
R1117	1-218-672-11	METAL CHIP	150	0.50%	1/10W
R1118	1-218-672-11	METAL CHIP	150	0.50%	1/10W
R1119	1-216-809-11	METAL CHIP	100	5%	1/10W
R1120	1-216-809-11	METAL CHIP	100	5%	1/10W
R1121	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1122	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1123	1-216-809-11	METAL CHIP	100	5%	1/10W
R1124	1-216-801-11	METAL CHIP	22	5%	1/10W
R1125	1-216-801-11	METAL CHIP	22	5%	1/10W
R1126	1-216-801-11	METAL CHIP	22	5%	1/10W
R1127	1-218-713-11	METAL CHIP	7.5K	0.50%	1/10W
R1128	1-218-713-11	METAL CHIP	7.5K	0.50%	1/10W
R1129	1-218-824-11	METAL CHIP	110	0.50%	1/10W
R1130	1-218-713-11	METAL CHIP	7.5K	0.50%	1/10W
R1131	1-218-713-11	METAL CHIP	7.5K	0.50%	1/10W
R1133	1-218-674-11	METAL CHIP	180	0.50%	1/10W
R1134	1-218-674-11	METAL CHIP	180	0.50%	1/10W
R1136	1-216-864-11	SHORT CHIP			

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R1137	1-216-864-11	SHORT CHIP			
R1138	1-216-809-11	METAL CHIP	100	5%	1/10W
R1139	1-216-809-11	METAL CHIP	100	5%	1/10W
R1140	1-216-801-11	METAL CHIP	22	5%	1/10W
R1141	1-216-801-11	METAL CHIP	22	5%	1/10W
R1142	1-216-801-11	METAL CHIP	22	5%	1/10W
R1143	1-216-801-11	METAL CHIP	22	5%	1/10W
R1144	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1145	1-218-703-11	METAL CHIP	3K	0.50%	1/10W
R1146	1-216-801-11	METAL CHIP	22	5%	1/10W
R1147	1-216-801-11	METAL CHIP	22	5%	1/10W
R1148	1-216-801-11	METAL CHIP	22	5%	1/10W
R1149	1-216-801-11	METAL CHIP	22	5%	1/10W
R1150	1-216-801-11	METAL CHIP	22	5%	1/10W
R1151	1-216-801-11	METAL CHIP	22	5%	1/10W
R1153	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
R1154	1-216-805-11	METAL CHIP	47	5%	1/10W
R1155	1-216-805-11	METAL CHIP	47	5%	1/10W
R1156	1-216-805-11	METAL CHIP	47	5%	1/10W
R1157	1-216-805-11	METAL CHIP	47	5%	1/10W
R1158	1-216-809-11	METAL CHIP	100	5%	1/10W
R1159	1-216-809-11	METAL CHIP	100	5%	1/10W
R1160	1-218-673-11	METAL CHIP	160	0.50%	1/10W
R1161	1-218-728-11	METAL CHIP	33K	0.50%	1/10W
R1162	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
R1163	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
R1164	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1165	1-218-680-11	METAL CHIP	330	0.50%	1/10W
R1166	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R1167	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1169	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1170	1-216-805-11	METAL CHIP	47	5%	1/10W
R1171	1-216-805-11	METAL CHIP	47	5%	1/10W
R1172	1-216-805-11	METAL CHIP	47	5%	1/10W
R1176	1-216-813-11	METAL CHIP	220	5%	1/10W
R1178	1-216-818-11	METAL CHIP	560	5%	1/10W
R1179	1-216-818-11	METAL CHIP	560	5%	1/10W
R1180	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1182	1-216-850-11	METAL CHIP	270K	5%	1/10W
R1183	1-216-850-11	METAL CHIP	270K	5%	1/10W
R1184	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1185	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1186	1-216-809-11	METAL CHIP	100	5%	1/10W
R1187	1-216-809-11	METAL CHIP	100	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R1191	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1192	1-216-805-11	METAL CHIP	47	5%	1/10W
R1193	1-216-805-11	METAL CHIP	47	5%	1/10W
R1195	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1196	1-218-709-11	METAL CHIP	5.1K	0.50%	1/10W
R1197	1-218-742-11	METAL CHIP	120K	0.50%	1/10W
R1198	1-218-720-11	METAL CHIP	15K	0.50%	1/10W
R1199	1-218-742-11	METAL CHIP	120K	0.50%	1/10W
R1200	1-218-728-11	METAL CHIP	33K	0.50%	1/10W
R1201	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R1202	1-216-809-11	METAL CHIP	100	5%	1/10W
R1203	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R1204	1-216-809-11	METAL CHIP	100	5%	1/10W
R1205	1-218-740-11	METAL CHIP	100K	0.50%	1/10W
R1206	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R1207	1-218-740-11	METAL CHIP	100K	0.50%	1/10W
R1208	1-216-805-11	METAL CHIP	47	5%	1/10W
R1209	1-216-805-11	METAL CHIP	47	5%	1/10W
R1210	1-216-864-11	SHORT CHIP			
R1211	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W
R1212	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W
R1213	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R1214	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R1219	1-216-813-11	METAL CHIP	220	5%	1/10W
R1220	1-216-813-11	METAL CHIP	220	5%	1/10W
R1221	1-216-864-11	SHORT CHIP			
R1223	1-216-864-11	SHORT CHIP			
R1225	1-216-864-11	SHORT CHIP			
R1229	1-216-864-11	SHORT CHIP			
R1232	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1233	1-216-809-11	METAL CHIP	100	5%	1/10W
R1234	1-216-809-11	METAL CHIP	100	5%	1/10W
R1236	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1238	1-216-809-11	METAL CHIP	100	5%	1/10W
R1244	1-216-864-11	SHORT CHIP			
R1245	1-216-864-11	SHORT CHIP			
R1256	1-216-864-11	SHORT CHIP			
R1257	1-216-864-11	SHORT CHIP			
R1258	1-216-389-11	METAL OXIDE	1	5%	3W
R1261	1-216-809-11	METAL CHIP	100	5%	1/10W
R1262	1-216-809-11	METAL CHIP	100	5%	1/10W
R1263	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1264	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1265	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1266	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1267	1-216-864-11	SHORT CHIP			
R1268	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1269	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1270	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1271	1-216-864-11	SHORT CHIP			
R1272	1-216-864-11	SHORT CHIP			
R1273	1-216-864-11	SHORT CHIP			
R1274	1-216-864-11	SHORT CHIP			

RESISTOR BRIDGE

RB1100	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1101	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1102	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1103	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1104	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1105	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1106	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1107	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1108	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1109	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1110	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1111	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1112	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1113	1-239-409-11	NETWORK RESISTOR(CHIP)	47
RB1114	1-233-575-11	RES, CHIP NETWORK 22 (3216)	
RB1115	1-233-575-11	RES, CHIP NETWORK 22 (3216)	
RB1116	1-233-575-11	RES, CHIP NETWORK 22 (3216)	
RB1117	1-233-575-11	RES, CHIP NETWORK 22 (3216)	
RB1118	1-233-575-11	RES, CHIP NETWORK 22 (3216)	
RB1119	1-239-409-11	NETWORK RESISTOR(CHIP)	47

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TU1100	1-693-718-11	TUNER

CRYSTAL

X1100	1-813-772-11	VIBRATOR, CRYSTAL

VD

REF. NO.	PART NO.	DESCRIPTION	VALUES		

VD

* A-1171-116-A VD BOARD, MOUNTED
(KD-32FS170/36FS170 ONLY)

CAPACITOR

C800	1-126-947-11	ELECT	47µF	20%	35V
C801	1-106-220-00	MYLAR	0.1µF	10%	100V
C802	1-137-350-11	FILM	0.015µF	5%	100V
C807	1-137-194-81	FILM	0.47µF	5%	50V
C814	1-107-385-11	MYLAR	0.056µF	5%	200V

CONNECTOR

* CN800	1-564-507-11	PLUG, CONNECTOR		4P
* CN801	1-770-723-11	CONNECTOR, BOARD TO BOARD		8P

DIODE

D800	8-719-302-43	DIODE	EL1Z
D801	8-719-911-19	DIODE	1SS119-25

COIL

L800	1-406-989-21	INDUCTOR	10MH
L803	1-406-986-21	INDUCTOR	3.3MH
L804	1-406-678-11	INDUCTOR	15MH

TRANSISTOR

Q800	8-729-016-42	TRANSISTOR	KTC3199GR-TP
Q801	8-729-195-82	TRANSISTOR	2SC2958-L

RESISTOR

R800	1-249-405-11	CARBON	100	5%	1/4W
R802	1-260-111-11	CARBON	10K	5%	1/2W
R803	1-260-111-11	CARBON	10K	5%	1/2W
R804	1-249-422-11	CARBON	2.7K	5%	1/4W
R805	1-249-441-11	CARBON	100K	5%	1/4W
R806	1-249-421-11	CARBON	2.2K	5%	1/4W
R807	1-249-420-11	CARBON	1.8K	5%	1/4W
R818	1-243-537-71	METAL OXIDE	330	5%	3W

REF. NO.	PART NO.	DESCRIPTION	VALUES

ACCESSORIES AND PACKING

*	2-657-860-01	BAG, PROTECTION (KD-27FS170/32FS170 ONLY)
*	4-066-646-02	BAG, PROTECTION (KD-36FS170 ONLY)
*	2-681-556-02	CARTON, INDIVIDUAL (KD-27FS170 ONLY)
*	2-681-557-01	CARTON, INDIVIDUAL (KD-32FS170 ONLY)
*	2-681-558-01	CARTON, INDIVIDUAL (KD-36FS170 ONLY)
*	4-088-874-02	CUSHION, LOWER (KD-27FS170 ONLY)
*	4-088-742-02	CUSHION, LOWER (KD-32FS170 ONLY)
*	4-088-741-02	CUSHION, REAR (UPPER) (KD-32FS170 ONLY)
*	4-088-875-02	CUSHION, UPPER (KD-27FS170 ONLY)
*	4-088-740-03	CUSHION, UPPER (KD-32FS170 ONLY)
	2-670-362-21	MANUAL, INSTRUCTION

MISCELLANEOUS

7-600-001-97	TAPE, ACETATE (P2412) 25X30M (KD-36FS170 ONLY)

REMOTE COMMANDER

1-479-712-11	REMOTE COMMANDER (RM-YD006)
9-939-697-00	BATTERY COVER (RM-YD006)

Sony Corporation
Sony Technology Center
Technical Services
Service Promotion Department

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SERVICE MANUAL

BA-6 CHASSIS

In an effort to reduce the size of this pdf file the tiled schematics are not attached to this Service Manual. To receive a complete set of the tiled schematics for this manual please submit a request to:

Service_Promotion@am.sony.com.